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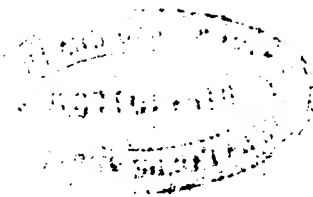
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PART I.

ORIGINAL COMMUNICATIONS.

I.

Case of Spina Bifida, accompanied with Hydrocephalus.
Read at the Medical Society of London, Nov. 1819.

[Communicated by H. CLUTTERBUCK, M.D., President.]

ON the 27th of the last month, I attended, with my friend, Mr. Sawrey, a member of this Society, the examination of the body of a child about a year old, who was born with defective spine. A tumor was perceived on the loins a few hours after birth, and continued gradually to enlarge till it acquired the size of a goose's egg. It varied in bulk from time to time, as will be stated. Soon after birth, the head began to enlarge, and continued to do so during life. The bulk of the head may be judged of by stating, that it was found, after death, to contain between two and three pints of thin, limpid fluid, not coagulable by heat. The tumor on the spine had extremely thin coats, so as to possess a degree of transparency. At uncertain times the tumor became much reduced in bulk, and flaccid; and on these occasions it was observed, or rather thought, by the parents of the child, that the head was proportionally enlarged. At these times the child always became very restless and ill. It was never able to use the lower limbs; but the upper ones were moved with freedom; so that it could lay hold of any thing, and was

capable of being amused with a roll of white paper, or other thing of the kind. It appeared to hear and see pretty distinctly; but its eyes were always turned upwards, so that it could only see in that direction. The child knew its parents, and evidently possessed a moderate share of intellect. It was not subject to fits of convulsion, as often happens in similar cases. Without any obvious cause, the child declined gradually in health, and died at the age of twelve months. A day or two before death, the tumor on the spine was observed to be unusually large and tense; but it gradually shrunk after death, till it became quite empty, so as to lie in folds, when it was examined on the second day after.

The spinal marrow was first laid bare throughout its whole length, by sawing through the rami of the spinous processes on each side. The chord was not continued as low as usual in the spine, but terminated abruptly by a tuberos extremity, as high up as the last of the dorsal vertebræ, from whence the cauda equina was sent down as usual.

Upon carefully dissecting the tumor on the loins, it was found that the portion of the chord forming the beginning of the cauda equina was firmly adherent to the front of the sac interiorly, there being only the skin and dura mater, with the immediate tunic, the pia mater, between it and the surface, without any perceptible intermediate cellular substance. Consequently, the spinal marrow was raised from its proper channel in the spine, and carried outwards to a distance of from two to three inches, that is, to the most prominent part of the tumor. The nerves were given off at this part at nearly the usual distances, but were, of course, elongated to the extent of the diameter of the tumor, in order to their reaching the foramina between the vertebræ, from whence they were to issue. The fibrils of these nerves were considerably separated from one another, during their course to the vertebræ.

The tumor altogether occupied the whole extent of the lumbar vertebræ; but the bone was deficient posteriorly, throughout the whole extent of the sacrum, down to the os cocygis.

From the top of the spine to the fifth of the cervical vertebræ, the theca enclosing the spinal marrow appeared considerably larger than the rest of the chord; and upon opening it up to the cranium, it was found that the portion of brain containing the fourth ventricle, with the medulla oblongata, was forced down the channel of the spine, by the pressure of the fluid accumulated in the ventricles above.

The head preserved its bulk and tension after the theca vertebralis was laid open; which showed that no communication existed between them, by which the fluid in the ventricles might be discharged.

The parietal bones were quite loose and moveable; and the principal part of the os frontis, viz. all the upper portion, was destitute of bony matter.

The dropical fluid was contained entirely within the ventricles, and amounted, as above stated, to nearly three pints. The two lateral ventricles might be considered as one great cavity, divided only by the falx, for the septum lucidum could not be distinguished. The thickness of the cerebral substance at the upper part of the hemispheres did not exceed the eighth of an inch; the medullary and cortical substances could, nevertheless, be easily discriminated by their respective colours. The external surface of the brain was much flattened, so as to exhibit very little of the appearance of convolutions; yet the veins here were of a pretty large size. By the stretching of the ventricles, the different structures at the basis of the brain were so altered in figure, and relative situation, as to be difficultly recognised. The third ventricle could hardly be traced at all.

The chief singularity of this case, (though it is not unprecedented,) is the close attachment of the spinal marrow to the front of the tumor in the loins; so that had a puncture been made here in order to discharge the fluid, it must have penetrated the spinal chord. The puncture in this case would not have discharged the fluid contained in the ventricles, but merely what was lodged between the membranes, and which was very inconsiderable. Such an operation, therefore, would not be likely to derange materially the condition of the brain, so as to endanger life, as might be the case if much fluid had been deposited between the dura and pia mater.

We wished much to have ascertained the weight of the entire mass of brain, after the discharge of the fluid, for the purpose of comparison with the brain at the same age, where there was no accumulation of fluid: in a word, to determine whether there had been any considerable loss of substance by absorption, or merely an expansion and unfolding of the cerebral substance, as supposed by Dr. Spurzheim. But we were not left at liberty to accomplish this object. The collected mass of brain, after the removal of the fluid, did not, certainly, in this case, seem to favour the idea of any diminution of bulk or weight in the brain.

II.

Case of Abdominal and Intestinal Disease terminating fatally ; with the Appearances on Dissection. By POWEL CHARLES BLACKET, R.N., Member of the Royal College of Surgeons.

IN the beginning of last May I was requested to visit a Mr. G. afflicted with this disorder. The patient's age was about sixty-four, and he had been from his childhood naturally of a costive habit of body, but otherwise enjoyed good health, until two months before I saw him, when he became suddenly fond of lying in bed to such an excess, that he would retire at nine in the evening, and not rise until two in the day ; and when from his bed, appearing always in deep thought, and never would leave his couch or chair : he complained of pain in his head and bowels, with violent vomitings, whenever he took solids, or wine, &c. ; but if he took broths, tea, &c. it would remain on his stomach, and relieve his pains for a short time. He had not had a motion for thirteen days ; but he did not think any thing about it, as it was not a very uncommon thing for him ; and as long as he can remember, he never had an evacuation more than once a week, unless he took very strong medicines ; and he never in his life applied to any medical man, but always took his own remedy on these occasions, which was thirty grains of jalap and five grains of calomel going to bed, and early in the morning two ounces of Epsom salts, which in general gave him three or four stools : from the age of four or five and twenty he had been accustomed to drink freely of wine, spirits, &c. : he rarely walked, and his principal exercise was either in his gig or on horseback. His pulse was about 88 to 90, rather full, but not hard ; the face and tunica conjunctiva of a yellow colour. I ordered him to abstain from solids, as well as beer, wine, and spirits, and to have for his general diet broth of mutton or beef, with plenty of pot-herbs, &c., and to take the following pills and mixture : —

R Pilulæ Hydrargyri, ʒss.

Elaterii, gr. i.

Fiant pilulæ sex, quarum sumat duas sextis horis.

R Magnesiz Sulphatis, ʒiss.

Infusi Sennæ, f. ʒvi.

Tincturæ Jalap., f. ʒss.

Fiat mistura, cujus capiat cochlearia tria sextis horis.

He continued these remedies for about twenty-four hours

before they operated, and then only twice: the fœces were very much flattened, and not much larger than a goose's quill; his pulse rising to a hundred, and very hard. I took sixteen ounces of blood from him; ordered an injection of gruel and olive oil; and gave him an ounce and an half of castor oil, to be repeated every three hours until it operated well. After the second dose of the ol. ricini, his bowels were opened seven times, and the three last evacuations were relaxed; but still being convinced there must be more indurated fœces remaining, I gave him, going to bed, the following:—

℞ Antimonii Tartarisati, gr. iii.
Hydrargyri Submuriatis, gr. v.
Confectionis Aromaticæ, q. s. ut ft. pilulæ duæ, hora
somni sumendæ, et primo mane
Ol. Ricini, f. ℥iss.

He slept well during the night, and about seven in the morning he had three evacuations of indurated fœces, and about ten o'clock two more, and at twelve three, very laxative. I found him in a very profuse perspiration; pulse about seventy-two; tongue clean; and in all respects very easy: to continue broth, &c., and to take pil. hydrarg. gr. v. alternis noctibus, et alterno quaque mane cochlearia tria mixturæ purgantis. He continued having a motion every day, and the days he took the aperient mixture, four or five. I now took my leave of my patient, telling him, that he must continue this plan for a few weeks, and then only to take his pills and mixture whenever he required them, so as to have a motion at least every day; to abstain in future from solids, spirits, wine, &c.; not to ride too much, but walk more; to mix in gay and cheerful society; and, above all things, to rise early in the morning. I saw him about six weeks after, and he told me, that he had by degrees perceptibly lost his unhealthy affection, and that he daily acquired new strength and vigour.

This is a complaint which is more common to females, and merely the effect of laziness or false delicacy; (it being so disagreeable, as they term it, to leave a party, &c. &c.) but yet it often proceeds from atony or weakness, and spasmodic stricture of parts. I should think, in the foregoing case, it must have preceded stricture, as the bleeding appeared to have relieved him almost immediately.

But to return to my patient, who again applied to me on the 19th of September, saying, that his bowels had been confined for seven weeks: he complained also of the pain in his head, with vomitings, &c. as before, and that he could not lead the regular life that I had advised him, for

more than two months, when he fell into his old habits of idleness and drinking, and with still more energy: his pulse was 82, full, but not very hard; his abdomen distended, but apparently from wind, which he never could discharge by rectum; on the contrary, when pressure was made, it would pass in considerable quantities through the œsophagus: at stated times of the day he usually had severe pain over the whole of the belly; at other times only about the navel; his appetite began to fail him; and the only thing he had a relish for was toasted bread with porter. I ordered him his pills and mixture as before, and an injection every four hours, as follows:—

R Magnesiæ Sulph. ℥ii.
 Infus. Sennæ, f. ℥xii.
 Ol. Ricini, f. ℥ii. Ft. enema.

20th. — All the symptoms more increased; the medicines had not operated; and the injections were unaccompanied with fœces. I thought it advisable to examine per rectum, but could not introduce my finger more than two-thirds up, owing to a stricture. In this case, I ordered twelve leeches to the verge of the anus, and poultices applied every twenty minutes, as hot as possible, in order to remove the stricture, and directed him to take the following:—

R Hydrar. Submuriatis, ℥i.
 Antimonii Tartarisati, gr. iv.
 Pulvis Jalapæ, ℥ii.

Fiant pilulæ sex, capiat duas statim, et tertia quâque hora repetr., ad vices tres.

In the evening, pulse 100; the symptoms increasing, and no motion; took from him f. ℥xvi. of blood, and ordered the mixture to be continued every three hours, and the following injection every six hours:—

R Cambog. gr. iii.
 Decoct. Hord. ℥iiss. Ft. enema.

21st. — Bowels not open; urine high coloured, and in small quantities; pulse 112; countenance sunk; all symptoms were worse; has had frequent vomitings, and cannot retain any thing on the stomach. Examined by rectum: the stricture still rigid, therefore none of the injections could pass: I endeavoured to introduce a bougie, but that was in vain, owing to the rigidity of the stricture; gave him several remedies, but his stomach would not retain them; put him in a hot bath, but this was not effectual; had his abdomen well rubbed with flannel, and then with mercurial ointment, but without any success; his pulse being high and

hard; took f. ℥xii . of blood, and left him for the night, introducing into the rectum two grains of the ext. belladon.

22d.—Patient as yesterday. Belly much more distended; had his feet put into hot, and then cold water; and gave him a dose of the crude mercury, about four ounces, but which did not pass. He continued in this state for two weeks, his belly swelling more and more daily, when, about five-days before his death, he was, all of a sudden, relieved of his pains, and, as he expressed himself, never better in his life; until two days after he was suddenly seized with excruciating pains; and in about nine hours from this, the dreadful scene was closed with violent delirium.

Examination.—The next morning I examined his body. When the abdomen was laid open, the *fœces* exuded in a fermenting state, with small globules of mercury intermixed, which I removed as soon as possible, with sponges, &c. The quantity nearly filled a common pail. The parts being well washed, I found the peritoneum in a highly inflamed state; the stomach perfectly empty, but healthy; the whole of the intestines empty, owing to the escape of the *fœces*. The omentum was ulcerated, and wasted to nearly one fifth of its natural size. The duodenum was much inflamed, and covered here and there with small dark brown patches; and where it descends under the mesocolon, towards the right kidney, it was ulcerated through. The jejunum and ilium were also much inflamed. The cæcum was in a state of high inflammation, and, towards its upper surface, mortified and given way; and it was through this place the *fœces* in part exuded. The colon was much inflamed in the whole of its course, and ulcerated through the centre of its great arch, and also in its sigmoid flexure, where also the *fœces* escaped. There was a rigid stricture in the rectum, and nothing but my knife could overcome it. The liver was rather harder than usual; and the gall bladder contained twenty-one stones, the largest weighing four scruples and three grains, and the rest about sixteen grains. The long circumference of the largest was three inches and a half, and the short one two inches and one sixth. This stone was fixed in the very mouth of the gall bladder; and there was in the gall bladder five f. drams of bile. *Appendiculæ pinguedinosæ* of the large intestines were also much inflamed, as well as the pancreas; and its artery was ossified for about one inch. The rest of the viscera were perfectly healthy; and the thorax was only somewhat compressed, owing to the enlargement of the abdomen.

III.

Case of Unnatural Presentation, &c. By W.
WANSBROUGH, Surgeon, Fulham.

I WAS called, some little time since, without any previous intimation, to a woman in labour. The patient had the attendance of a midwife. The summons was from the latter herself. I was desired to take my instruments with me. Upon arriving at the bedside of the patient, I saw the midwife upon her knees, apparently using efforts in pulling at the child, as I afterwards discovered. "O sir," she addressed me, "here is a hand presentation!" Satisfied of her ability to judge, at least, of the presentation, I deliberately proceeded to turn the child. In this I was completely foiled; the shoulder had arrived at the os externum, the hand was already delivered. The attempt to introduce my hand was impracticable, as the vagina seemed completely blocked up. I could not feel the head. I endeavoured twice to accomplish the turning; but each attempt produced such violent action of the uterus; and my intention being completely frustrated, I desisted, fearful of producing injury to my patient.

I then felt for the pulse of the protruded arm, but there was none; the arm was cold. In the first introduction of my hand, I felt what I supposed to be the head, in the vagina. In the second attempt, I carried my hand on the opposite side of the fœtus, *i. e.* on the pubic side of the vagina. The action of the uterus prevented me from reaching beyond the umbilicus; indeed I could not, as I have said, without the risk of danger to my patient. The whole of what I have written occurred in five minutes. Finding then that the child was dead, I became a little less anxious in expediting the delivery. My patient, from exertion, had now become calm, and nearly exhausted. Her pains had been strong and quick during two hours before I saw her; and the midwife had been with her six hours previously to my arrival. The short cessation of uterine action afforded me an opportunity of examining a little more *ad libitum*. I endeavoured to find the head; and after gradually tracing from the shoulder, along the curvature of [the sacrum, at a short distance I felt the chin! I was much puzzled; but upon careful and attentive examination, I at length, after much agitation and discomfiture, discovered the head reflected back, with the occiput against the dorsal vertebræ, pressed together, and

completely wedged into the sacral hollow of the vagina. Upon this discovery, I waited patiently for the pains, hoping the action of the uterus might expel the foetus in the position it then was. Those who know the powerful action of a healthy uterus in parturition will not be surprised at my entertaining this hope. After two surprisingly strong pains, the foetus remained *in statu quo*. My patient, at this crisis, pathetically, and in the most beseeching tone, urged me to relieve her from her misery. What was to be done? There appeared no prospect of delivery in the natural way: and I confess, never having met with such a case, I was at a loss how to act. However, necessity roused my invention; and I succeeded in placing the forceps (a long pair) over the head, *in situ*, and, during a pain, gradually depressed the head, at the same time elevating the body, by pressing against the sternum, and particularly against the shoulder of the protruded arm, which, being much lower than the other, had occasioned an awkward inclination of the head and body to nearly a lateral position. By degrees I succeeded in bringing down the elevated shoulder parallel with its fellow. At this moment I was most fortunate: a pain came on, and taking the advantage of it, by a similar movement, I succeeded in delivering the head, and the body followed almost instantly. Puerperal fever supervened six hours after, with inflation of the womb and peritonæum. I adopted the usual means of cure, and the patient is now quite well.

I am verily disposed to believe, that convulsions would have terminated the sufferings of my patient, had not speedy delivery been produced. Moreover, I learned from a woman who was with the patient, that for an hour previously to my being called for by the midwife, and even whilst the messenger was on his way, she (the midwife) had been pulling most forcibly by the arm of the foetus, doubtless in the hope of delivering ere my arrival!

I examined the foetus. Putrefaction had commenced; and the arm which had protruded was literally stripped of the cuticle, and the muscles emaciated by the efforts that had been made by the midwife to extract the child.

The patient had felt the motion of the foetus on the day of delivery, two or three hours before the midwife arrived. I have mentioned this fact, because another fact, affording some room for discussion, was connected with it; viz. the putrefactive process. Query, How soon after the death of the foetus *in utero* does this process take place? I flatter myself that I possess some data upon which I may presume to offer an opinion on this point, at some

future period. Nothing can be more absurd, than Practitioners declaring, in the gravest manner, "This child has been dead at least two or three days;" nay, oftentimes (we have heard it asserted): two or three weeks, when the motion of the foetus has been decidedly felt even the very day of, or on that before the delivery.

Note.—The subject of the case here detailed has never been delivered of a living child. This is the sixth. I propose rupturing the membranes (if she has another) at the eighth month.

IV.

Case illustrating the beneficial Effects of dividing an injured Part. By THOMAS BELLOT, Manchester.

A MEDICAL gentleman in this neighbourhood being requested to open the body of a young man who had died in consequence of severe blows and kicks, the body was inspected twenty-four hours after death. In tracing the intestines considerable force was used, which, before the inspection was concluded, caused much pain in the index of each hand. A rupture was discovered sufficiently large to permit part of the contents of the intestines to escape. A great deal of very offensive fluid was found in the cavity of the abdomen. This fluid, of an irritating nature, in all probability had co-operated strongly in bringing on the violent inflammation which so soon terminated in death. After finishing the inspection, a smarting pain was felt at the end of the fore-fingers, which had been freely used instead of the knife. The next morning some slight inflammation was perceived just above the nail of each fore-finger; but as there was no wound upon the fingers previous, nor any made during the inspection, nothing serious was apprehended from the inflammation, which kept increasing, with great pain. On the second day cooling applications were used; and in the evening immersion in warm water was continued from six o'clock till ten, when the pain had almost subsided; and some sleep was obtained from eleven to two. The pain now began to increase again, and continued severe the day and night following. On the Sunday, as the inflammation was rapidly advancing, it occurred to the medical gentleman who was suffering, that if an incision was made across the inflamed fingers, a stop might be put to its farther progress. This was determined upon, and the operation performed upon one finger in the evening, and some leeches applied to the other. Poultices were

applied to both. That which was operated upon became much easier in less than an hour: in the other there was little or no abatement of pain. The next day, being the 5th, the inflammation had got to the wrist. The pain had now subsided in the finger first operated upon. In the evening of this day the same operation was performed upon the other. The incisions were made through the skin, a little above the nails, across the parts where the pain and tension were the greatest. This was attended with the same success as the former, and in the morning following the inflammation at the wrist was nearly gone. Poultices were continued; and nothing very unfavourable took place afterwards, though the wounds continued in a very irritable state some time, and matter continued forming under the scarf skin, in the neighbourhood of the incisions. In the course of a little time the fingers were completely healed.

In this case it may be doubtful whether there was absorption of matter, or whether the inflammation was produced by the acrid matter irritating the skin, together with forcibly using the ends of the fore-fingers instead of the knife. From whatever cause the inflammation was produced, there is no doubt of the success of the operation. Incision is strongly recommended by Richter and others in whitlow; and the medical gentleman who is the subject of this case has since had two or three cases of whitlow where matter had just formed. Incisions were made in these cases, affording speedy relief from excruciating pain, and the fingers saved from carious bone and destruction of the tendons.

V.

On the Scholastic Character of Hospitals. By LUCIUS.

I AM solicitous to direct the attention of such of the readers of the REPOSITORY as are attached to hospitals, to the double method of accomplishing the object of these institutions. To those whose minds the subject has already occupied, a repetition can do no harm; and to such as have never pondered thereon, I will endeavour to manifest its importance. That the Profession of Physic has been designated liberal, is less owing to what mankind have witnessed, than to what they expected. They who nominated it proceeded upon the principle of the novelist, who portrays his hero as he ought to be, instead of delineating the true characteristics of an original. That the Profession

ought to be liberal, no man will deny ; its objects and its studies—its preparations and practice—its substance and ornaments—claim the appellation : and if there be a deficit, it is not in the art or the science—it is not in the thing professed, but in the professor. Like all other good, it endures the liability to abuse. It comes into contact with the passions and the interests of men. It is not an abstracted science ; but it is exposed to all that defilement, which the purest honour and the loftiest spirit find so extremely difficult to avert from any thing that bears the stamp of trade. What the actual state of the Profession in most periods has been, the able Essayist on “ Medical Improvement ” has clearly displayed. I will not say that no other profession has manifested equal animosities and reproaches, abuses and conflicts : that of divinity has told us, that no subjects are too momentous, no cause so philanthropic, but the selfishness and brutality of men will desecrate its sanctity, and convert the life-blood of its mercy into gall and venom. If priests have failed to maintain unanimity, no wonder that doctors should disagree.

In the erection of infirmaries, the private founder, or the munificent public, contemplates the performance of the greatest possible good by the means apportioned. Their object is simple and heavenly—it is the relief of anguish, whether of body or mind. It recognises no partial interests, no mercenary motives, no narrowed considerations. That this is true, is evidenced by the fact that almost all civil hospitals afford no direct emolument to their officers. These are supposed to sympathize with public tenderness, and to rest contented with a prospect of their success, and a consciousness of active humanity.

Let it be questioned, then, whether this supposed liberality of the medical officers be universally realized ? whether they keep pace with the desires of the public ? whether the simplicity and the generosity of the objects of such institutions be not too often marred and restricted by men whose duty and whose glory it is to preserve them free and stainless ? As the process whereby the public benevolence is carried into effect is double, the duties of the medical officers are likewise compound. The first is the direct relief of the sick. Upon this I intend to offer no remarks ; yet I might say that here there is great room for reformation, and I may, at some future period, endeavour to prove it. The second duty of hospital Physicians and Surgeons is less direct, but equally binding ; it results from the scholastic character which the public and their founders

indubitably attribute to infirmaries. Hospitals afford peculiar opportunities of scientific observations: in them the various, and dissimilar, and unconnected maladies of man are concentrated; and such institutions ought, in consequence, to be made, to the utmost possible extent, schools of science. From the observation of the medical or the surgical practice, no student, no Practitioner should ever be debarred. To these, all hospitals should be as accessible as the courts of law to a barrister. How small is the direct benefit of an infirmary, resulting from the treatment of its inmate patients, compared with what must be produced by the knowledge afforded to spectators, and carried into exercise in the numerous ramifications of town and country practice!

Upon this point I need not amplify; no man will dispute the benefits to science which the observation, by unattached Practitioners, of hospital practice, would generate in surrounding districts.

It is, then, the duty of official Physicians and Surgeons to throw wide the portals of their respective establishments—to harmonize with the wishes of the public—to aspire to similarity and extent of object—to consider themselves the servants of the public, and the benefactors of mankind, and not the lords of a domain, or the cerberus of office. I assert with regret, that this is not the general state of things, and that a medical visit to an infirmary, or attendance at a surgical operation, is deemed to incur an obligation equal to what is involved in the entry into a private museum, or operating room. There is, in general, equal difficulty of admission; equal necessity of formal introduction; and equal assumption of individual proprietorship. In general, I say, for there are splendid exceptions in every metropolis and city, by men, who scorn “the insolence of office,” and who disdain the appropriation of scientific opportunities, or the paths to reputation and emolument. I have said that the founders of hospitals, and the public subscribers, contemplate such scholastic advantages, because they aspire to the attainment of the utmost quantum of good which their contributions can admit. If, then, a system of jealousy and exclusion be maintained by the officers of an infirmary—if some professional brethren be debarred access from want of friendly acquaintance, and some by a manly distaste of incurring obligations, less good emanates to society than otherwise might; the intentions of the public or the founder are but partially effected; the attached Practitioners are deficient in *duty*. Such men, moreover, should remember that they have a duty to themselves, as well as to their electors. It is due to their fair reputation, to their dignity

and station, to make no concealment of their peculiar practice in medicine, or their mode in surgical operations. This sort of mysterious secrecy very naturally and fairly engenders suspicion: he who is loath to have strangers spectators of an operation, may well be imagined to operate in a manner not very creditable: and I announce a fact, when I say, that I can pretty accurately guess at the talents and acquisitions of an hospital Surgeon, by his frank reception of any body, or every body; or by his abhorrence from the gaze of all but familiar eyes.

I shall press the matter no further; for of what has been said, no man, I fancy, will hardly advance a denial. No man will say that a charitable public, or a philanthropic founder, would rest contented with a degree of benefit short of what the exertions made, and the aid advanced, might command. No man will say that infirmaries are erected to subserve the purposes of private reputation, or personal lucre—to be considered as castles, containing their own garrison, but excluding by their moats, and ramparts, and portcullises, the intrusive step of the stranger. They are temples dedicated to humanity: and as the portals of Janus were closed but in time of peace; so it will be time enough to bar the doors of our hospitals and operating theatres, when their objects cease to exist; when pain and mutilation; when accidents and insanity; when distress and death are vanquished. In the mean-time, let public duty and respect for their own dignity, induce in official Practitioners habits of urbanity becoming the philanthropy of their Profession, and of generous frankness worthy of an important science: yet to an objection which may be started against a proposal like the above, it will be right to provide an answer. It may be said that this extension of hospital advantages involves the annihilation of those emoluments which pupillage confers upon the various officers. I have no such meaning.—I am not desirous that this country should imitate the conduct of France, in the facilities given to medical study and practice with the slenderest income, the meanest rank, the most neglected education, and the smallest capacities. On the contrary, if it were manageable, I would increase even the present impediments.—I desire for the Profession all that respectability which birth, and fortune, and education create; for I am not so radical a reformer as to think that there is no respectability in these advantages; or that the good is calculable which society receives, in manners, virtue, and felicity, through these distinctions, which, if some have called them artificial, to me appear directly appointed by the course of nature

and the will of heaven. The medical world comprises two divisions; into Students and Practitioners; and of Students at hospitals, some are dressers, and the rest mere spectators: of dressers a dearth will never be feared; the advantages of their office will permanently secure an abundant number of candidates; and of the remaining class of Students the fees will at no time be annihilated or diminished; since, whether they contemplate the practice of medicine, surgery, or pharmacy, laws are already in existence compulsory to specific attendance at hospitals, and the production of consequent certificates.

To medical Practitioners, again, the objection is surely irrelevant: so far as a direct reduction of official income is concerned, they who never contributed under one system, will not diminish it under another. Yet here I cannot conceal that there may be an indirect diminution of the emolument of hospital Surgeons. The confidence, and the skill, and the success of surgical operations would not be so rigidly limited to the official character; the Practitioners in the country would dispute their fame with those of a metropolis; and the great fees for lithotomy, and amputation, and herniotomy, would not so frequently distend their pockets. To be ingenuous; this, I take it, is too frequently the ruling and efficient motive to that churlish and repellent system, which I have undertaken to denounce. Against interest, then, argument and conviction avail but little—the mercenary and the cupidinous will still preserve their habits in that exact proportion, “*quantum ipsa pecunia crescit*,” and men of a different stamp need no laboured exhortation to the practice of liberality and the observance of duty. Why then have I composed this essay? To remind the latter of what even they might chance to forget, or view in the light of minor importance; and to assure the former, that whatever reasons they may give the world for their conduct, the texture is too gauzelike for concealment of the real; and that it is a truly Sisyphean enterprise for artifice, and cant, and hypocrisy, to aspire to the august serenity of independence, and the unembarrassed complacency of truth.

DEPARTMENT OF NATURAL HISTORY, &c.

Calendar of Flora and Fauna, kept at Hartfield, near Tunbridge Wells, by Dr. T. FORSTER, from the 17th of November to the 5th of December, 1819.

Nov. 17th.—Rain the whole of the day. A few Fungi re-appear.

19th.—The weather cold and raw. The last two or three days have produced a sensible change in the appearance of the country. The leaves are fallen, the temperature low, and the waters in some places are out in the low meadows that border the streams of the Medway.

21st.—Some of the summer flowers remain in solitary specimens here and there. Fieldfares continue to arrive in great abundance. The number of these birds are said to correspond with the degree of severity of the winters in the northern regions. The circumstance of their great abundance, therefore, this year, may be interesting to those who are concerned about the situation of the Polar expedition. The Hedges this autumn are very full of Berries, which adds much to their picturesque appearance, and contributes to enliven this dreary season of the year.

Dec. 5th.—The following cryptogamous plants are now in fructification:—*Funaria hygrometrica*, *Bryum hornum*, *B. caespitium*, and *B. roseum*; *Polytrichum commune*, *P. subrotundum*, and *P. nanum*; *Parmelia candelaria*, *P. ciliaris*, *P. prunastri*, *P. farinacea*, and *P. vitellina*; *Bæomyces furcatus*, *B. pyxidatus*, *B. fimbricatus*, and *B. farinaceus*; *Peltidea caninus*, *P. vinosus*, and *P. horizontalis*.

Besides the above, many species of *Jungermannia* and of *Hypnum* are in perfection, not yet examined as to species. *Dicranum pulvinatum*, *D. bryoides*, and *D. viridulum*, and *Neckera heteromalla*, and *N. crispa*, were found yesterday in fructification.

Several Sea Gulls were on the 2d instant seen at Croydon, in Surry; and the abundance of Fieldfares increases*.

Many flowers are as yet unblasted by the frosts. Some Perriwinkles, Dandelions, and Mallows yet remain.

Some species of *Orchis* are appearing above ground. The weather continues very changeable, and, for the most part, cold and windy. Hares are particularly numerous this year, and of late several Foxes have appeared in this neighbourhood; but this animal is, in general, very rare here, though so common in the bordering parts of Surry.

The following plants, to which reference is made some-

* N. B. In alluding to different species of birds in the course of this Calendar, I shall make use of the generic nomenclature and the arrangement I have adopted in a small paper entitled "Synoptical Catalogue of British Ornithology," which I lately composed, and which is published by Messrs. Nicholls and Co., &c., London, 1819; the arrangement and division of genera being founded on numerous dissections of the brain, and other parts of the birds, on the form of the cranium, the bill, &c.

times in this Calendar, have been discovered since the publication of the *Flora Tunbrigensis* :—

<i>Drosera longifolia</i> ,	<i>Spiloma decolorans</i> ,
<i>Festuca calamaria</i> ,	<i>Lecidea petræa</i> ,
<i>Parmelia perforata</i> ,	<i>Lecidea scabrosa</i> ,
<i>Parmelia Borreri</i> ,	<i>Lecidea ferruginea</i> ,
<i>Parmelia furfuracea</i> ,	<i>Polytrichum urnigerum</i> ,
<i>Parmelia Clementiana</i> ,	<i>Tragopogon porrifolius</i> , and
<i>Parmelia sophodes</i> ,	<i>Rosa Micrantia</i> .

After continued research, I cannot find that *Papaver somniferum* is wild hereabouts. This plant has been put down as such from specimens escaped by the fall of seeds from garden plants; neither are the other four species, so common elsewhere, by any means numerous in this neighbourhood.

[This Journal is to be continued in the neighbourhood of Tunbridge Wells.]

On the Periodical Phenomena of Plants.

A PHENOMENON exists in plants which I have never seen fully treated of in any work on the physiology of vegetables, and on which I shall therefore offer a few observations. I allude to the periodical opening and shutting of flowers, and their particular causes. For example, some flowers are open all day, while others expand only in the evening. There are likewise noctiflorous plants, which close their flowers in the morning.

In the above cases the degree of heat might be alleged as the exciting cause of the expansion of the flowers: but this will not hold good with regard to other vegetables, which open and shut their blooms at stated hours of the day, or at certain distances of time before changes of weather. In these latter cases we must look for some other cause of the phenomenon, perhaps to some electrical changes in the state of the atmosphere. In order, however, that facts may precede theory, I shall first notice a few of the particular phenomena.

The *Helianthus annuus* exhibits a phenomenon which we can most clearly ascribe to the solar rays; namely, that of turning its flowers towards the sun; being directed eastward in the morning, south at noon, and westward in the evening. The name of Sunflower has, however, no connection with this circumstance.

The generality of flowers open at sunrise, and close in the evening.

The Evening Primrose opens at sunset, and closes before midnight.

Most of the syngenesious plants are periodical, and have certain times of day for opening and shutting.

The *Tragopogon pratensis*, or Yellow Goatsbeard, opens in the morning, and shuts at noon. The *Tragopogon porrifolius* does the same.

The *Hippochæris radicata*, and several others of this family, shut their flowers about three o'clock in the afternoon.

The Four o'Clock Flower is also well known, and is nearly as regular as a watch.

The Pimpernel does not open its flowers in the morning when rain is coming, and has become thereby an indicator of the ensuing weather.

Hence there seems to be some particular periodical influence exerted on certain plants in the course of the day, and on others casually, in particular weather. In general I have remarked that the syngenesious and composite flowers are most under the influence of the former. What this influence consists in is unknown; neither has any conjecture been made, unless that of the electric state of the air varying at stated periods of the day; but the phenomenon should be more attended to; and the question I beg to submit to future observation is, Whether any connexion can be found between the times of these vegetable periods, discovered in the phenomena of plants, and those periods of the recurrence of the paroxysms of ephemeral diseases, observed by pathologists in the animal system when disordered?

This subject might possibly admit of further illustration, from regular tables of the times of the phenomena, both of plants and animals, and of collateral journals of the electrical changes of the air, noticed by means of the atmospherical electrosopes, and of M. De Luc's column*. I hope, in a future Number, to give a table of periodical plants.

T. FORSTER.

* I refer the reader to my Observations on Atmospheric Diseases, &c. 8vo. 1807.

PART II.

GENERAL REVIEW

OF

MEDICAL LITERATURE,

FROM JULY 1819, TO JANUARY 1820.

Enig ille, qui ex perspectis naturæ legibus, et cognita corporis animalis
fabrica, ratiocinatur.

By merit, rather than by magnitude or number, have the publications of the preceding six months been marked; and, however small the list of volumes shows itself during this lustrum, it is impossible to consider it as insignificant, since on it are enrolled the names of Cooper, and of Cooke, of Haslam, and of Wilson. The productions of these authors, with those of all the others who have published during the above stated period, it was our design to notice and canvass in the present and following Number of the **REPOSITORY**. This design, however, has been defeated by the industry of our respected coadjutor, upon whom the management of the foreign department devolves, and who has transmitted so much, and such important matter, as to leave us absolutely without space for more than one department of our general review — that department, then, we shall occupy by chemistry, and postpone to the February and March Numbers the notice of the several other works which have been issued from the British press on topics immediately or remotely connected with medical science.

CHEMISTRY.

WE shall pursue, in our present retrospect of the progress of the sciences auxiliary to medicine, the same order as we did in our last; namely, that of Ebn Sina, commonly called Avicenna, since no better one has yet been found, in respect to practical purposes, however deficient it may appear in a theoretical point of view.

EARTHY BODIES.—As usual, several analyses of minerals have been published by the chemical mineralogists, with whose results we have but little concern. It is said (*Phil. Mag.* liii. 463) that the diamond has been found in the bed of a rivulet in Ireland. The wavellite has been dis-

covered by Berzelius to be a phosphate of alumine; and Professor Fuchs has lately shown (*Ann. Phil.* xiv. 276) that this is not an uncommon mineral; a mineral formerly called fibrous zeolite, of the St. Jacob mine, in the Upper Palatinate, and lately named by him lasionite, being of the same composition. There is reason to think, that phosphoric acid, in combination with alumine, exists in many minerals, and that this combination has been mistaken for pure alumine, as the phosphate of alumine will form alum, and exhibit many of the characters hitherto given as those of pure alumina. The blueish green colour given to the flame, when a mineral containing phosphoric acid is exposed to the action of the blow-pipe, is one of the easiest tests to discover its presence; but in some cases, as in apatite, it is necessary to dip the mineral previously in sulphuric acid. A similar process will detect the presence of boracic acid, which gives the flame a much livelier green colour. Glass is said (*Ph. Mag.* xv. 316) to be annealed, or rendered less liable to break by sudden application of heat or cold, by being boiled in water, and left to cool gradually in the water. The force with which the glass drops, called from Prince Rupert, are exploded when their tail is broke off, is well shown, (*Quart. Journ.* vii. 371) by immersing them in a bottle of water; for when thus broke, they explode with such force as to tear even a stout wine bottle asunder.

SALTS.—In our last we mentioned an acid intermediate between sulphuric and sulphurous acid. The paper of Gay-Lussac and Welter shows, that there are now four acids derived from the oxygenization of sulphur; viz. the sulphuric, containing one atom of sulphur with three of oxygen; the sulphurous, with only two of oxygen; the hyposulphuric acid, with one of oxygen; and, lastly, the hyposulphurous, of two sulphur, with five oxygen. Hyposulphuric acid, called sulphurin in our last retrospect, is inodorous, sour, not capable of existing in a gaseous form, may be concentrated to the density of 1.347 without decomposition, but is then decomposed into sulphurous and sulphuric acid. When very dilute, it is decomposed by a heat even under boiling water. It cannot be prepared by either hydrated peroxide of barium, nor the brown oxide of lead, although they are so similar to peroxide of manganese. The hyposulphuric acid is distinguished from the other acids of sulphur, by its being decomposed by heat, as has been just stated; and by forming soluble salts with baryta, strontia, lime, lead, and silver. The general characters of the hyposulphates are, their constant solubility in water; their not yielding sulphurous acid when mixed with other acids, except the mixture heats of itself, or is heated purposely; lastly,

their decomposition by heat into sulphurous acid gas and neutral sulphates. The superiority of *pyroligneous acid* in preserving vegetable substances is confirmed. Mr. Houton Labillardiere has also confirmed the observations of Scheele, on the acid obtained by distilling the saccholactic or mucic acid, and which Trommsdorf thought was identical with the succinic; but H. Labillardiere (Ann. de Chim. ix. 365, Ann. Phil. xiv. 265.) has shown that its properties are peculiar. Dr. Prout (Ann. Phil. xiv. 363) has justified himself from the strictures of Vauquelin respecting the existence of *purpuric acid*, and attributes the want of success attending that French chemist's experiments to his having operated upon impure lithic acid; whereas Dr. P. always used pure lithic acid, prepared from the excrements of the boa constrictor exhibited in London: he also affirms his purpuric acid to be very different from the erythric acid of Brugnatelli. *Boracic acid* has been manufactured in Tuscany from the lakes there, in such quantities as to overstock the market. Several new combinations of the *Prussic acid* have been discovered by the Count Le Maistre, of St. Petersburg (Ann. Phil. xiv. 440). He has combined that acid with starch, gum, sugar, gelatine, cochineal, tannin, soap, and even white wax; in all of which combinations, a true chemical union, as indicated by a change of properties, took place. Charcoal soaked in an alkaline ley, ground while moist with sulphuric acid, then boiled in water, formed, on the addition of prussiate of potash, a dark green prussiate of charcoal, which, on exposure to air, assumed a fine brilliant blue colour, which resembles indigo in dissolving in sulphuric acid; this solution, when diluted, deposits the prussiate. This analogy with indigo is very remarkable. These properties belong also to the prussiates of starch, gum Arabic, and cochineal. Similar combinations were made with sulphur, phosphorus, iodine, alumina, silex, carbonate of lime, sulphate of lime, common white clay, a greenish clay, and several of the metals: from which experiments he concludes, that Prussic acids exist in three different well marked states. 1. The pure acid, without oxygen or iron, as it exists in the soluble prussiate of mercury. 2. The ferruginous acid, without oxygen, as it exists in the prussiate of potash and the green prussiates. 3. The ferruginous and oxygenized acid, as it exists in all the blue prussiates. Guibourt has observed (Quart. Journ. vii. 387.) that in deflagrating one part of nitre with two of cream of tartar, to form subcarbonate of potash, if the heat is great, and the alkali fused immediately, cyanuret of potash is also formed; but if the crucible is scarcely red

hot, and the mixture taken from the fire immediately, the subcarbonate is perfectly free from either a cyanuret or nitrite of potash. It is well known that *subcarbonate of ammoniate*, exposed to the air, soon becomes inodorous, and ceases to act upon turmeric paper. Mr. Phillips (Quart. Journ. vii. 294) has instituted comparative analyses of the two salts, and finds the pungency of the subcarbonate depends upon the continual exhalation of carbonate of ammonia, which continues until a bicarbonate of ammonia is left, which is inodorous. A new alkali, *delphine*, has been announced by Mess. Lassaigne and Feneulle, (Ann. de Chim. xi. 188) as being combined with malic acid in the seeds of stavesacre, *delphinium staphisagria*, to which it gives its own acrimonious taste. It is extracted in the same manner as morphia, and forms very soluble, bitter, and acid salts; with sulphuric, nitric, hydrochloric, and acetic acids, from which it is precipitated by potash, soda, and ammonia, in flocculi, which appear like gelatinous alumine. A long paper on the *Combination of Acids with bases and indifferent Substances*, (*i. e.* those that do not saturate acids,) has been published in Gilbert's Ann. der Physik. lx. 33, Ann. Phil. xiv. 37, in which he conceives that when sulphuric acid is mixed with alcohol, it forms a peculiar acid, which cannot be decomposed by any saline basis, and to which he gives the name of protoinothionic acid, *i. e.* first sulphuretted wine acid; and that all the powerful acids are capable of uniting not only with alcohol, but with other organic principles, as sugar, gum, tallow; and of thus forming with them more or less durable acids, of very remarkable properties, although hitherto overlooked; very inferior to the original acid in strength, but which cannot be decomposed by the most powerful saline bases. He also considers the compounds now called hydrates to consist of two distinct classes, hitherto confounded together; one the true hydrates, in which the substance is combined with thermate of ice, *i. e.* water; as crystallized muriate of lime; the other, or false hydrates, contains only ice, as solid hydrate of lime. He thinks there exist also solid compounds, which contain heat and light; as sulphur and oxygen gas, or, as he calls it, thermate of light oxide. Indeed, he thinks almost all the gases ought to be looked upon as thermates. Though we do not approve of many of his speculations, yet it must be allowed that he has pointed out to inquirers a portion of chemistry hitherto but little cultivated, and which promises a number of discoveries to those that engage in it. Dr. Thomson has found (Ann. Phil. xiv. 146) the best method of crystallizing acetate of ammonia,

and probably of many other salts which crystallize with difficulty in the common way, is to enclose a concentrated solution in a shallow dish, over a plate of sulphuric acid, in the exhausted receiver of an air pump. Mr. Macintosh, a manufacturer of sugar of lead at Glasgow, has accidentally obtained a salt, in large, flat, rhomboidal crystals, resembling, in other respects, the common sugar of lead. Dr. Thomson, on examining this new salt, found it (Ann. Phil. xiv. 382) to contain about twenty-two per cent of acetic acid, sixty of protoxide of lead, and eighteen of water.

The history of METALLIC SUBSTANCES has not been much enlarged this half year. The causes of the superiority of *wootz*, or *Indian steel*, in the construction of surgical and other cutting instruments, still remains hidden from our view. Mr. Faraday (Quart. Journ. vii. 288.) found one specimen of *wootz* to contain a very minute portion of silic and alumine, not 1-500th in the whole; another specimen, which, however, did not present the same structure as the former, contained neither of these earths: on the other hand, some specimens of English steel contained abundance of those earths, yet did not present the same structure as *wootz*, nor possessed the same permanence of edge. Mr. Fox found (Quart. Journ. vii. 387.) that when *platinum* is melted with tin, antimony, or zinc, a kind of explosion takes place, and a very considerable evolution of heat and light, which continues for some time. A detailed account of the manufacture of *tin plates*, as given by Mr. S. Parkes, is published in the Quart. Journ. vii. 141, in which the circumstance of *cast iron*, varying in temper, being hard if cast in a thick cast iron mould, which chills it immediately, or soft if cast in sand, is deserving of attention in the manufactory of many utensils employed in the arts. Some attempts have been made lately to apply the power of *iron* in subtracting oxygen from water to the preservation of meat, and other substances, by immersing them, with some iron, in water, covered with a thin layer of oil, but apparently (Phil. Mag. liv. 58, 141.) with little success. The presence of *titanium* has been detected by Robiquet, in the octaedral oxide of iron of Corsica, and by Berzelius in the specular iron ore of Elba. Mr. Lucas has shown (Manchester Mem.) that *silver* and *copper* absorb oxygen during fusion, which they part with on becoming solid: it is this escape of oxygen that causes the fungus-like excrescence on silver, gradually cooled, and the oxygen may be collected by pouring the silver into water, and covering it with a bell-glass. The oxygen may be taken away by covering the fluid metals with charcoal; and hence copper,

melted with its surface exposed to the atmospheric air, explodes violently when poured in a fine stream into water; but if melted under charcoal, it may be thus granulated without any explosion. These observations remind us of the flowered or starry silver, said to be in currency in some parts of Asia beyond the Ganges, produced by blowing through a reed upon the metal when poured out of the crucible, to form an ingot; and there considered as an inimitable criterion of a certain degree of fineness. A case in which some of the arsenicated *lead shot*, commonly used to cleanse wine bottles, being accidentally jammed in at the bottom of the bottle, caused the Madeira wine which had been kept in it, to produce severe pains in the bowels, is recorded in the *Phil. Mag.* liv. 229. The experiments of Berzelius upon *selenium* have been continued. (*Ann. Phil.* xiv. 97.) He thinks the selenic acid is composed of 100 parts of selenium, united with 40.33 of oxygen. This acid is easily reduced, and may be united with hydrogen gas; the seleniuretted hydrogen gas is easily decomposed by water and air, or by any moist bodies, which assume a cinnabar red colour. This gas is very penetrating; moist paper becomes red in the interior; wood is penetrated to some depth; and a tube of gum elastic became of a fine red on the inside. It affects the nostrils at first like sulphuretted hydrogen gas, the eyes are then inflamed, and the sense of smelling so completely lost for five or six hours, that a bottle of concentrated ammonia may be held to the nose without any odour being perceived: a strong rheum then takes place, and continues for a fortnight. If respired, a dry, painful cough comes on, which continues a long time, and goes off by an expectoration, whose taste is exactly analogous to the vapours of a boiling solution of corrosive sublimate. These dangerous effects are produced by a much smaller quantity than would be requisite of any other inorganic substance whatever to produce a sensible effect. He details a number of combinations of selenium and of the selenic acid. A paper on the oxides and salts of quicksilver, by Mr. Donovan, has been published in the *Ann. of Phil.* liv. 241, by which it appears that the oxides contained in the various salts of quicksilver are only two in number, and perfectly similar to the common black and red oxide, which last is sometimes yellow: that no super-salts of quicksilver exist in a dry state, and the apparently liquid ones ought rather to be regarded as solutions of the neutral salts in an excess of their own acids. As sixty grains of quicksilver afforded only six grains of oxide by forty hours' trituration, he examined the composition of mercurial ointment. By

melting this ointment, letting it cool gradually, removing the lard of the inferior stratum by pressure between blotting paper, and grinding the residuum with magnesia, he separated seven hundred and seventy grains of quicksilver from four ounces of the ointment; so that less than forty-seven grains and a half was retained by each ounce of the ointment, in chemical combination. As this combination formed the upper stratum of the melted ointment, its effects were tried on three females, upon whom it had the usual effects, in doses of one dram a night. On melting lard with black oxide of quicksilver for two hours, each ounce of lard took up twenty-one grains of oxide, and the ointment thus made was equally active with the common mercurial ointment, which contained twelve times more quicksilver. A dram could also be rubbed in from six to fifteen minutes, on an average about eight; while the common required thirty or forty minutes: it was seldom that any pustules were produced by the friction, and the parts were scarcely discoloured. He prepared his oxide by decomposing calomel, or precipitating nitrate of quicksilver, by a solution of pure potash. It requires a heat of about three hundred and twenty degrees to enable the lard to take up the oxide. This explains the inefficacy of the ointment prepared by merely rubbing the grey oxide with lard. And again, if the lard contains any common salt, calomel will be formed; so that attention must be paid to this circumstance. Mr. D. adduces several certificates from the Surgeons of the Hospitals in Dublin, in favour of this new ointment.

INFLAMMABLE SUBSTANCES.—The increasing employment of gas for lighting places, has occasioned inquiries into the nature and constituent parts of *coals*. Dr. Thomson (Ann. Phil. xiv. 81.) has divided the coals used about Glasgow into four species, and found the following to be the proportion of their constituent parts, by weight, per cent.

	Carbone.	Hydrogen.	Azote.	Oxygen.
Caking coal	75.28	4.18	15.96	4.58
Splint coal.....	75.00	6.25	6.25	12.50
Cherry coal	74.45	12.40	10.22	2.93
Cannel coal	64.72	21.56	13.72	—

The relation between the hydrogen and the carbone is truly singular, as is also the general resemblance between substances containing the same elements in such different proportions. Dr. T. is inclined to think that these coals are direct combinations of their component parts, and not compounds of bitumen, as was formerly supposed. A

number of experiments have also been made on *oil gas*, for which we have no room.

VEGETABLES.—The *red snow*, of the polar regions, has been demonstrated by the microscopical investigations of M. Bauer, to be caused by a red fungus, a species of the genus *uredo*. When *fruit* is preserved in carbonic acid gas, a formation of alcohol has been found by Mr. Dumont to take place, and the fruits acquired the firmness and taste of those preserved in brandy. Mr. Sheldon has published experiments made on the wood and bark of the *chesnut*, (*Phil. Mag.* liv. 148., from *Silliman's Journal*.) from which it appears that the bark contains twice as much tannin as rossed oak bark, and six-sevenths as much colouring matter as logwood; the extract of chesnut is very similar to catechu, leaving the same refreshing sweetness on the tongue; but in dyeing it is very different, for it yields, with iron, a fine blue or blue black. Chesnut lake is blue. A new apparatus for preparing pharmaceutical extracts has been devised by Mr. J. T. Barry, (*Ann. Phil.* xiv. 387.) by distilling the juice, &c. in an iron retort, to which a copper receiver is annexed, both exhausted of air by the repeated introduction of steam, and subsequent condensation of it: when the vacuum is rendered as perfect as possible, the retort is heated to the desired degree by steam. The extracts thus procured are very pale, and possess most of the sensible qualities of the plants. *Bassora gum*, of the French shops, is said by M. Damart, (*Journ. de Pharm.*) to be a species of cerasine, exuded by different species of *mesembryanthemum*. An atmosphere charged with the scent of a large quantity of fresh *Peruvian bark*, was found by Mr. Delpech (*Journ. de Pharm.*) to have a febrifuge effect, equal to that of taking the bark in substance. It may, however, be justly doubted, whether the dry bark, found in European warehouses, would have the same effect.

In respect to **ANIMALS**, the most singular fact that has been recorded within the period of our retrospect, is one by the late Dr. Gillan, Physician to the embassy to China under Lord Macartney, (*Quart. Journ.* vii. 273.) respecting a powder frequently used in Japan and Java. Mr. Titsing, employed by the Dutch East India Company, was an eye witness to its effects. A small quantity of this powder is put into the eyes and ears of a dead body, and in a few minutes the joints regain their flexibility, and may be disposed in any attitude: the progress of putrefaction is arrested, and this flexibility of the dead fibre continues as long as the organization remains entire, which is, indeed, a long

time. Mr. Titsing bought some of this powder at a high price, but never made use of it, being, indeed, apprehensive, that as it had such wonderful effects upon the dead fibre, it might, *à fortiori*, have still greater effects upon the living one. The Japanese Physicians would not communicate the preparation, except to those who went through the regular initiation into the Profession. The tubes for *pectorilology*, or examination of the soundness of the lungs, mentioned in our twelfth volume, p. 150, as used by M. Laennec, are cylinders of wood, a foot long, sixteen lines in diameter, and perforated in the centre, like a pipe, by a bore three lines in diameter (Phil. Mag. liii. 465). The experiments of M. Thenard (Ann. Phil. xiv. 70.) show that *picromel*, or the peculiar substance to which ox-gall is indebted for its properties, differs from sugar and gum by containing a much smaller proportion of hydrogen. As it contains no azote, it has, of course, the character of a vegetable substance, rather than that of an animal. M. Chevallier has given (Journ. Pharm.) the result of experiments on the *pus of venereal sores*. This pus, especially when the constitution is broken down by the excessive use of quicksilver, is frequently ill conditioned, seems to be more or less impregnated with ammonia, it is often foetid, and one would suspect it has undergone a kind of putrefaction. The only difference that M. C. could detect between the pus of well and ill conditioned venereal ulcers, was the presence of ammonia in the latter, and its absence in the former. Dr. Thomson, (Ann. Phil. xiv. 232.) giving an account of these experiments, suspects the pus of scorbutic ulcers to be, on the contrary, of an acid nature, from the wasting of the bones, and the destruction of old callosities, which occur in that disease. Some persons, as observed by Dr. Thomson, (Ann. Phil. xiv. 232.) occasionally cough up *earthy concretions*, without showing any tendency to pulmonary consumption. These concretions appear to consist chiefly of phosphate of lime, with some carbonate, cemented by an animal matter, which retained the size and shape of the concretion after the earthy had been removed by an acid. A *bony mass*, discharged by ulceration and suppuration from a wen, contained more phosphate and less carbonate of lime than human bone. Dr. Prout has related (Ann. Phil. xiv. 475.) a singular case of spontaneous pytalism, accompanied with a diminished secretion of urine. The *saliva* had an urinous taste, and was considered as urine from the stomach by the patient. It contained free alkali, as it appeared, upon analysis, that the three acids found in it were not sufficient to saturate the alkali it also contained.

PART III.

SELECTIONS.

Observations on the Medico-Chemical Treatment of Calculous Disorders. By W. T. BRANDE, Sec. R. S., &c.

[Continued from page 313, Vol. XI.]

Section 2. *On the Production of Calculi in the Kidneys, their Nature, and Treatment.*

HAVING endeavoured in the first section of this Paper to point out the principal circumstances connected with the early symptoms of gravel, and with their treatment, I shall now endeavour to give some account of what may be called the second stage of the disease, or that in which the materials are voided in an agglutinated form, so as to constitute small calculi, or *gravel*, limiting the term *sand* to the earlier stages. It generally happens that the formation of gravel is preceded by one or more attacks of sand, and that concretion is prevented by due precaution in that earlier stage of the disorder; but this is by no means always so, for not unfrequently the first alarm of the patient is occasioned by his voiding a calculus, and that of no small size.

The calculi formed in the kidney, and voided without remaining any considerable time in the urinary passages, are either uric, oxalic, or cystic. It is difficult to assign a reason why the phosphates never concrete so as to form small kidney calculi; but I have never as yet seen an instance of this kind; for in three instances in which concretions, consisting of ammonio-magnesian phosphate, were voided, they were solely of bladder origin, and appeared to owe their formation to disease of the prostate gland in two cases; and, in a third, were fragments of a larger calculus rounded by attrition in the bladder.

The uric calculi, as voided immediately from the kidney, are of a yellowish or reddish brown colour, somewhat hard, soluble in caustic potash, exhale the smell of burned horn before the blow-pipe, and when heated with nitric acid, produce the peculiar red compound which Dr. Prout has called *rosacic acid*.

The oxalic calculi vary considerably in appearance. They are generally of a greyish brown colour, and made up of numerous small cohering spherules: sometimes they have

a polished surface, and resemble a hempseed. They are easily recognised by their insolubility in dilute muriatic acid, and by their behaviour under the blow-pipe, where they swell up, and burn into a white ash, consisting of pure lime.

The cystic calculi have a yellowish colour, a crystallized appearance, and are soluble in dilute muriatic acid, and in diluted solution of potash. When heated in the flame of a spirit lamp, or by the blow-pipe, they exhale a peculiar fetid smell, which, as Dr. Wollaston has remarked, is singularly characteristic of this species.

With respect to the relative frequency of these calculi, the first are by far the most common; the second are not rare; and the third of unfrequent occurrence. Out of fifty-eight cases of kidney calculi, fifty-one were uric, six oxalic, and one cystic.

The treatment of kidney calculi may be divided into general and particular. The former applicable in all cases; the latter dependant upon the chemical nature of the concretion.

As a full and nutritious diet, and the daily use of fermented liquors, tend, independent of other causes, to increase the specific gravity of urine, and, consequently, to render the separation of its solid contents more likely to occur, they should on that account only be avoided; but when conjoined, as they often are, with sedentary habits, the powers of the digestive organs become impaired, there is more or less habitual costiveness, and a corresponding change in the secretion of the kidneys, by which it is rendered more prone to sabulous deposits, always ensues. Hence it is, that writers on the present subject have properly advised plain food, moderate exercise, and abstinence from fermented liquors: it is also, I think, right, in most cases, to enjoin the liberal use of aqueous drinks, by which the urine becomes diluted, and, consequently, will have less tendency to form any deposit.

But all experience shows, that whatever deranges the stomach and bowels, and the other organs concerned in digestion, more especially the liver, produces corresponding mischief in all these calculous cases: hence the apparent success of very opposite modes of treatment, and the probability that calculus is, in many instances, to be considered as a symptomatic disorder; and hence also the beneficial effects of mild aperients, tonics, bitters, &c., and the great advantage of moderate horse exercise, where it is not forbidden by irritation in the kidneys. There can, on the other hand, be little doubt, that violent exercise may, for

many reasons, be prejudicial ; and, among others, by occasioning profuse perspiration, which carries off a portion of water by the skin, that would otherwise have passed through the kidneys.

Of the calculi which we are now considering, those formed of uric acid are, as I have already observed, by far the most frequent ; and it is of this substance that the calculi retained in the kidney, and filling the infundibula and pelvis, and often increasing to such a size as to obliterate a great portion of the glandular structure, are almost exclusively formed : hence it is always an object to obtain the expulsion of a calculus from the kidney as soon as possible, and to prevent its increase.

The symptoms of kidney calculus are of very different shades of violence, and sometimes so trifling, that little is suspected till the stone is voided ; and that the formation of a stone in the kidney is not necessarily attended by any leading symptoms, is proved by the numerous cases in which they have been discovered after death in those viscera, without any mischief having been suspected during the life of the patient : of this a very remarkable instance is related by Dr. Marcet, in a patient who died of hydrothorax, and who never complained of any affection of the urinary organs, but whose kidney was distended by a large collection of calculi.

But acute pain almost always attends the passage of a calculus along the ureter ; and when this is followed by the expulsion of small grains of red sand in the urine, the nature of the disease is sufficiently distinguishable from mere inflammation. There is, however, seldom much diagnostic difficulty ; for the cases are very rare in which a calculus has made its way from the kidney to the bladder, without sufficient warning ; and we usually hear of a sense of weight in the region of one of the kidneys, succeeded by an obtuse pain of the part ; the urine is described as high coloured, and depositing a reddish sediment ; then comes the acute pain of the passage along the ureter, generally attended by numbness of the thigh on the same side, and of very variable duration ; this is succeeded by a period of ease, which lasts either till symptoms of stone in the bladder come on, or till the calculus enters the urethra : at this period, every means should be resorted to that tend to the expulsion of the stone ; for, as will afterwards be shown, the longer it remains in the bladder, the less likelihood will there be of getting rid of it. Large quantities of aqueous drinks, and other mild diuretics, should be resorted to, and the greatest benefit is frequently derived from purgative medicines, the best of which in these cases is the sulphate of magnesia, dissolved in a large quantity

of warm water, or the same salt with infusion and tincture of senna.

While on this subject, it is necessary to bear in mind, that a small calculus may lodge in the membranous part of the urethra, and gradually enlarge there in consequence of the deposition of new matter by the passing urine, until it has acquired a very considerable size. In the fourth section of my Paper on the differences in the structure of calculi, I have noticed three cases of this kind, of which the specimens are preserved in the museum of the College of Surgeons. Dr. Marcet (Essay, p. 9.) has also described a similar case, in which the stone was mistaken for a stricture, and of which a representation is given in the fifth plate of his work.

Among the most common general symptoms of kidney calculus, is the production of a large quantity of mucus, which is often streaked with blood, and sometimes of a purulent aspect. A considerable hæmorrhage, too, not unfrequently attends the passage of a stone into the bladder.

Such are the chief symptoms that attend the production of a calculus in the kidney, and its passage into the bladder, and they naturally call for certain plans of general treatment which it is not my business here to dwell upon, but which principally relate to allaying irritation and mitigating pain, as by opium; by henbane, which is often a most useful medicine, operating as a diuretic narcotic, without producing costiveness; by the warm bath; by frictions upon the loins by external irritants, excepting always cantharides; by suppositories or injections of opium: I have heard tobacco infusion recommended also as an injection, but should suspect it of mischievous rather than good effect.

Much of what might have been said respecting the particular treatment of kidney calculi has been anticipated in my former observations "on the early Symptoms of Gravel, and on the modes of treating them;" but in the present instance, more promptitude and judgment are required, in consequence of the risk now incurred of the lodgment or formation of a calculus in the bladder.

The majority of cases, as I have already remarked, are *uric*, while kidney calculi, properly so called, composed of the phosphates exclusively, are of extremely rare occurrence: accordingly, having attended to all that relates to the passage and expulsion of the calculus, if we find it composed of uric acid, those means must be adopted that I have endeavoured to explain, in speaking of *uric sand*. (Vol. XI. page 313 of this Journal.) Carefully observing the importance of pursuing the alkaline system to a certain extent only,

and not erroneously persevering in it as a preventive, after the desired effect of removing its excess in the urine has been attained. The dull pain that remains in the region of the kidney, after the formation or passage of a small calculus, is not, as far as my experience goes, to be considered as symptomatic of the lodgment of calculous matter: it is generally relieved by cold bathing; and, in more than one case, I have observed electricity of considerable service: when, however, it is attended by nausea, sickness, shivering, and pain or numbness of the thigh, the retention of calculous matter in the kidney may be justly feared, and in this species of calculus a relapse is always to be apprehended.

It is a difficult point to determine the particular treatment applicable to oxalic calculi, but it fortunately happens that they very seldom occur; and as oxalic sand is not voided at the time of their formation, we are not able to judge of the cause of the mischief till the effect has become evident. I have memoranda of nine cases of the voiding of oxalic calculi, and in one only has there been a second attack, after an interval of two years: in one instance a second stone was voided three days after the first, but it had probably lodged in the bladder, and was of coeval formation with that which first passed.

Two instances of cystic oxide voided as a kidney calculus, have come under my own observation, and I have neither seen nor heard of any other. In one, the calculus was voided by a labourer, and was sent to me with no particulars of the case, nor have I since been able to obtain them. In the other, several of those calculi, varying in size from a pin's head to that of a pea, had been voided at different times during a period of thirty years, by a gentleman forty years of age: he had been subject, from the age of six or seven years, to pain in the region of the loins, not confined to any particular spot, and seldom of any acuteness, or such as to prevent his ordinary occupations, which obliged him to lead rather a sedentary life: his usual state of health was good; his habits very regular; his diet ordinary and plain: he had used soda water, magnesia, and the alkalies, without any advantage. I proposed he should try a mild acid plan, and pointed out to him the requisite precautions that should be adopted to prevent the retention of a calculus in the bladder; but I have not been so fortunate as to learn any further particulars respecting this gentleman, who is resident in Ireland.

There are many circumstances connected with the history of kidney calculi, which I have not adverted to, either for

want of practical information upon the subject, or because I shall have a preferable opportunity of recurring to them in the observations I have yet to make on calculi of the bladder.

(*From the Quarterly Journal of Science and Arts.*)

PART IV.

FOREIGN MEDICAL SCIENCE AND LITERATURE.

“ Nisi utile est quod facimus, stulta est gloria.” — CICERO.

RETROSPECT OF FOREIGN MEDICAL SCIENCE AND LITERATURE, FOR THE YEAR 1819.

NEITHER our time nor our limits will allow us to preface with diffuse observations, explanatory or apologetic, an undertaking, on the subject of which some intimation was, last month, given to our readers. Little explanation will, in fact, be necessary; and when the extent and difficulty of the enterprise are calculated, apology for its imperfections will, we trust, be deemed equally superfluous.

This retrospect will consist of two parts: — 1. A succinct analysis of foreign periodical literature on medicine, and the sciences connected with it, during the past year; and, 2. A retrospect of general medical literature and science for the same period. The first will expose the title of every original article contained in several of the best foreign journals, and for the most part convey a correct idea of their object and character: and in the second will be briefly traced the progress of the science under the respective heads, to which the work or memoir analysed correctly belongs. Every important article passed over, or imperfectly noticed in the first, will be reverted to in the second part.

I. SUCCINCT ANALYSIS OF FOREIGN PERIODICAL LITERATURE.

French Journals. — Of these, many are regularly published; and a new one has recently been announced*. The most valuable will be found in the ensuing list: —

* *Revue Médicale, Historique et Philosophique.* The editors are thirteen in number; several of acknowledged eminence. One volume in octavo, is to be published every three months, commencing from the present time. The prospectus, which we have just received, promises well.

New Journal of Medicine, Surgery, and Pharmacy *.

This is published monthly, and is divided into three departments; original and translated memoirs and cases; analytical review, under the title of "Medical Literature;" and varieties, including extracts from other journals, and bibliographical notices, domestic and foreign. The bulletins of the Faculty of Medicine are published with, but do not form an integral part of it. They do not appear every month. Four numbers of this journal constitute a volume of about 400 pages, octavo.

JANUARY, 1819. — *Original*. — *Memoir on Œdema of the Glottis, &c.* By G. L. Bayle†.

Memoir on Osteosis; or, the Formation, Increase, and Senile Atrophy of the Bones in the Human Subject. — Anonymous; is continued through several numbers, and will be hereafter noticed‡.

Varieties||. — A reply from Orfila to some anonymous strictures on his writings; and a necrological notice of Dr. Montegre, late editor of the *Gazette de Santé*§, who died, in 1818, of typhus, at St. Domingo, whither he had gone to superintend a medical institution in the capital of the empire of Hayti.

Bulletins of the Faculty of Medicine of Paris¶, 1819, No. I.

Cases of Aneurism, followed by reflections on some singular phenomena exhibited in the subjects of these cases. By Baron Larrey. — Case 1, is one of large aneurism of the right popliteal artery, in a soldier, aged 36, with extensive effusion of blood in the cellular structure around, and a blue colour of the integuments. Hunter's operation was, after some debate,

* *Nouveau Journal de Médecine, Chirurgie, Pharmacie, &c.* Edited by M. M. Beclard, Chomel, H. and J. Cloquet, Orfila, and Rostan. It constitutes a new series of the journal long edited by Corvisart, Leroux, and Boyer, and was commenced in 1818.

† See REPOSITORY, Vol. XI. page 320.

‡ The works analysed, obviously do not come within the limits of our present object. All of importance will be either noticed in our general review, or enumerated in our list of foreign publications at its close.

|| Much of the matter contained in the varieties is wholly uninteresting to our English readers. We shall select such articles as are possessed of practical value or useful information.

§ The *Gazette of Health* was published in a quarto form of eight pages every ten days, and formed an annual volume. It was a useful and well conducted publication. We know not whether it has survived the departure of Montegre from Paris.

¶ *Bulletins de la Faculté de Médecine de Paris, et de la Société établie dans son sein.* The Bulletins have now been continued for fourteen years. The present forms a part of the sixth volume.

preferred to amputation, and to ligature of the artery above and below the tumor, with incision of the sac. The artery was tied at the edge of the sartorius, with two ligatures including a cylinder of plaister. Pulsation instantly ceased; and the limb was surrounded with bags of warm sand. Six hours afterwards, the temperature, at first reduced, rose above the natural standard; and the veins, collapsed at the operation, greatly dilated. Symptoms of cerebral and thoracic congestion ensued, with diminution of the tumor. Venesection, twice employed, was succeeded by tranquillity, and reduction of the temperature, and swelling of the limb. For the three first days the ligatures were gradually tightened on account of slight pulsation in the tumor, which on the ninth day was lessened to half its volume. The ligatures were now removed, and cicatrization rapidly advanced. A point of fluctuation, in the centre of the tumor, had, however, taken place, and, bursting in the night, discharged much thin red fluid. The opening was enlarged by the knife, and many black fetid coagula evacuated. Generous diet prescribed. The wound of the thigh completely healed; but two of the toes sphacelated.—19th. Hæmorrhage from the ham, consequent on intemperance. Death on the 21st. The crural artery, on injection, was found obliterated from above the ligature to the ham. Larrey accounts for the varicose state of the limb, and local and general congestion, by absorption of the fluid part of the blood from the aneurism and surrounding parts by the veins, and the reflux of arterial blood from the tied vessel to the heart. The increase of temperature probably depends on the gorged state of the capillary vessels. He considers that, in large aneurism complicated with extensive diffusion, ligature of the vessel above and below, and incision of the sac, are preferable to the more simple operation. In such cases, amputation rarely succeeds.

Case 2. The axillary artery was opened by a sabre-wound, in a soldier, aged twenty-one. Frightful hæmorrhage ensued, but was suppressed externally by bandage. Great tumefaction from diffusion of blood in the cellular membrane. The radial and ulnar arteries had ceased to pulsate: the hand cold, and faintness deadly. The incision was extended, and the artery tied amid the brachial plexus of nerves, on a cylinder of plaister: a ligature also put on the inferior orifice of the vessel, and coagula cleared away by an extensive incision of the integuments, on the inside of the arm. The sense of cold and numbness was dissipated by external warmth and cordials; and all went on favourably.—4th day.

Slight motion of the radial artery, evidently proceeding from below upwards, and increasing to the 7th. Extremities of three first fingers found sphacelated.—8th. Fetid smell, and disappearance of the pulse, announce the progress of the gangrene. Next day, whole hand and part of forearm implicated, and general symptoms of putridity. The wound of the arm yet going on well, and ligatures removed without hæmorrhage. Amputation was now practised below the point of ligature, and followed by gradual amendment. The stump nearly cicatrized, except a fistulous opening in the lower part; a catarrhal affection, consequent on exposure to cold and damp, came on, and terminated fatally on the 34th night from the operation.

Dissection.—Chronic inflammation of lungs, particularly the right, with points of suppuration in their substance, and purulent effusion in the right thoracic cavity. A ligature found in the stump, from which extended an orifice, the probable predisposing cause of the pulmonary affection, into the right thoracic cavity.

Case 3.—An officer, aged twenty-seven, received a sword-wound on the left arm, whereby the pectoral, biceps, and triceps muscles, and brachial artery, were divided. Profuse hæmorrhage, which was suppressed at the moment by compression, not recurring on its removal, a bandage only was applied.—5th day. An oblong tumor, with fluctuation and obscure pulsation, found occupying the whole inside and front of the arm. Pulse of that side scarcely perceptible; whole limb swollen and numbed; symptoms of general congestion, with fever. Repeated blood-letting and cold applications. Arterial blood, however, oozed from the wound; and the artery was tied on the night of the 5th. The inferior portion of the artery, being retracted, was not secured. Much black coagulated blood removed; temperature of the limb became unduly elevated; and return of the general turgescence again demanded bleeding. An *anti-peristaltic* motion of the radial artery observed on the 3d, increased to the 8th, then decreased; and next day entirely lost. Heat, however, still preserved, and all well till night, when copious hæmorrhage came on. The ligature of the artery was tightened, and compression employed in vain. The bleeding recurred, and the arm removed at the joint next day, with ultimate success. The embarrassments of the case were attributed to the influence of a syphilitic taint. Dissection of the limb showed ulceration in the posterior paries of the tied artery, and an inflamed state of the remainder of the vessel.

*Two Sitzings of the Faculty, and two of the Society** are reported. They afford nothing important, except a case of wound of the thorax, before noticed†.

FEBRUARY.—*Original*.—*Memoir on Osteosis*, (continued).

Case of Inguinal Hernia. By M. Pellerin.—The subject, a lady, aged sixty-eight, had for several days displayed all the symptoms of strangulation; yet no decisive measures were employed. She with difficulty recovered. The author's object is to confirm the inference of a preceding writer, that the symptoms, originally induced by strangulation, may survive complete reduction of the hernia, and that prolongation of these symptoms, previously to the operation, may sometimes cease to depend on their first cause, and continue after its removal.

Notice on Luxation of the Thigh, followed by a remarkable case of one in the superior anterior direction. By Baron Larrey.—This is the most rare of all the four varieties of luxation, to which the hip-joint is subject. It occurred here from the fall of a horse on his armed rider. Its characters were; limb separated, and turned in on the pelvis, so as to form a right angle with its fellow; foot and knee directed outwards; buttock and trochanteric eminence replaced by a deep hollow; head of the femur projecting, and distending the crural vessels, in the groin; whole extremity tumefied, marbled, motionless; leg numbed, and foot cold; rending pains in the groin and abdomen. After many forcible but fruitless efforts, Larrey alone reduced it, by suddenly raising with his shoulder the lower extremity of the thigh bone, while with both hands he depressed the head, resting before the horizontal portion of the pubis. Inflammation of the joint followed, with retention of urine, (ascribed to inflammation of the neck of the bladder, from irritation of the pudendal nerves, furnished by the injured crural plexus); severe pain in the groin and inside of the whole limb; fever; abdominal heat, and sleeplessness. Subdued by catheter, local bleeding, and cataplasms. In the horizontal, but not in the erect posture, the limb continued about four lines longer than natural. This depends on rupture of the inter-articular ligament, which, with the orbicular, is always torn in such cases.

Reflections on the Centaurea Calcitrapa. By M. L. Valentin.—This plant (*star thistle*) is recommended as a

* These reports are regularly published; but, in general, contain little that can interest the English reader. All the articles, exhibiting new or useful information, and these only, will be duly noticed.

† See REPOSITORY, Vol. XI. page 511.

powerful febrifuge; often more effectual than cinchona, in intermittent and continued remittent fever; may be given in infusion, aqueous, or vinous, or in an extract. Petals, involucre, and leaves, indiscriminately used. Commonly preceded by an emetic.

Note on some Pathological Cases observed in the same Individual. By M. Rostan.—A boy, dreadfully deformed by rickets, recovered his figure and powers at the age of ten. Some wounds of the head, inflicted by an apparently healthy dog, opened again, without known cause, eleven years after reception. Arsenical paste was applied: the consequent ulceration healed, and was succeeded by loss of voice, which went off and recurred, and was preceded and attended by violent constriction and dilatation in the chest and larynx. Attacks resembling epilepsy succeeded. The cranial wound opened again, and the aphonia has not returned. All the organic functions regular.

Varieties.—A new modification of acupuncture*, particularly applicable to ophthalmic diseases, described by Dr. Demours. Its advantages doubled by the employment of a cupping-glass, previously to and after the operation; resembles, in nature and results, both dry cupping and the process by searification.

Bulletins of the Faculty, &c. 1819. No. II.

On several Alterations of the Texture of Bones, from Age, and in consequence of different Diseases. By Dr. F. Ribes.—Notice postponed.

Five Sitzings of the Faculty, and two of the Society, for February.—Dupuytren presents the first successful case, in Paris, of ligature of external iliac artery. Case, femoral aneurism.

MARCH.—*Original.*—*Essay at an Exposition of the Nervous System.* From a German work, by Carus. Insusceptible of analysis.

Memoir on Osteosis, (continued).

Extract of a Memoir on Starch. By M. Robert.—An account of the various plants wherein the existence of starch has been discovered by the delicate test iodine. Farther notice.

Varieties.—Dr. Ure's galvanic experiments on the Glasgow

* The instruments employed in acupuncture, are a gold or silver needle with spiral handle, and a small ivory mallet. The operation consists in abstraction of blood by insertion of the needle into various parts of the body either with the fingers or mallet. Hence the title of the process.

criminal. Method of detecting factitious orris-peas. Swedish formula for ammoniacal ether. Two latter hereafter.

Bulletins of the Faculty, &c. 1819. No. III.

Spontaneous Cæsarean Operation, consequent on Gangrene. By A. Bertrand. With Notes, by Dr. Colin; and Report, by Professor Desormeaux.—A woman, aged 40, seized, during violent exertion in the ninth month of eighth pregnancy, with uterine pains and discharge of water and blood in succession, July 9th, 1811. Symptoms ceased on reclination.—15th. Abdominal swelling, pain, and inflammation, without inequality, induration, or increased heat of the vagina. Adynamia about the close of the month; and death just impending, when a circular red mark appeared between the umbilicus and pubes, and soon formed an eschar, surrounded by an inflamed circle. Its detachment, Aug. 13th, gave issue to much puriform offensive fluid, and the decomposed body of an almost mature fœtus. Bertrand had now a full view of the uterine cavity, and, with index of one hand passed per vaginam, met the other, introduced through the wound. No placenta was found; no milk, during the whole time, secreted. The wound gradually healed, and patient well, in the end of September; but abdominal hernia remained. In four months, menstruation recurred. The Notes of Dr. Colin are principally historical, and, like the Report of the Professor, advert to several somewhat analogous cases, but none precisely similar. We shall resume the subject.

Anatomical Description of a full-grown Fœtus with Spina Bifida. By M. Gerdy.—Notice postponed.

Two Sitzings of the Faculty and two of the Society, during March.—11th. Professor Dupuytren announces to the Society his having tied the subclavian artery, in its passage between the scaleni, in a case of axillary aneurism. Incision of anterior portion of muscle premised. No change in the sensibility, temperature, or mobility, hitherto induced; and all promises well. The object in tying it there, instead of between the scalenus and clavicle, the complete separation of the vessel at the former point from the vein and brachial plexus.—25th. Subject recovered from the operation; aneurism daily decreasing.

APRIL.—*Original.*—*Case of Hydrocephalus.* By M. Hipp. Cloquet. From a paper by Dr. Glover, of South Carolina.—The cranium was eight times perforated, during three months, in an hydrocephalic child of seven months; and six pints of water drawn off, besides three after death. The fluid had collected between dura and pia mater. The

former membrane thickened without inflammation; brain nearly disappeared. Earlier recourse to this operation strongly and confidently recommended. The puncture here was made by a common lancet, and a canula subsequently introduced.

Extract of a Discourse delivered by Professor Chaussier, Sept. 28th, 1818, at a Public Sitting of the Society of Medicine, Surgery, and Pharmacy, of the Department of the Eure.—Subject, Perforations of the stomach. Notice postponed.

Cinchona administered in the Hydrocephalic Fever of Children. By M. Mareschal.—The title indicates its object. Three cases illustrative of the practice detailed: two first successful; fatal case not inspected after death. The plan strongly recommended by several preceding writers.

Report of the Committee of the Vaccine Depôt, sitting at the Hôtel-Dieu of Marseilles, to the Prefect of the Department of the Bouches-du-Rhone.—A confirmation of the efficacy of "good and genuine vaccine" in the destruction of small-pox.

Memoir on Osteosis, (concluded).

Varieties, uninteresting.

MAY.—*Original.*—*Exposition of the Nervous System.* By Carus. (Continued.)

Case of Spontaneous Emphysema. By M. Chesneau.—Gastric disorder, inappetence, lassitude, unsound sleep, turbid urine, constipation, and irregular rigors, preceded the attack, in a male of 67. Increased heat, nausea, colic, its immediate precursors. The swelling began at the ankles, and extended every where, with exception of the head, neck, and fore-arms. It disappeared next morning. The principal remedies, ipecacuanha, pediluvia, blisters to the calves, sinapisms to the feet. The bilious fever declined about the fifteenth day.

Notice of a Woman whose Skin became black in consequence of violent mental emotion. By M. Rostan.—A woman, aged seventy-five, whose skin had been originally quite white, died last April, of chronic enteritis. She had always been delicate; menstruated irregularly, and suffered from abortion, hernia, thoracic and abdominal inflammation. Condemned to death at the onset of the revolution, she was relieved at the place of execution. On view of the fatal instrument, the menses were suppressed, the complexion began to change, and continued so till death. The epidermis, on separation, was transparent; the meshes of the cellular structure unusually large.

Dissection.—Colour unaltered; rete mucosum brown, like

that of negroes.—*Cranium*. A little serum in the ventricles.—*Thorax*. Pleuritic adhesions, pericardium cartilaginous and dense, heart large, ventricular parietes thickened and firm; no valvular disease, nor preternatural orifice.—*Abdomen*. Slight and partial congestion of gastric mucous membrane, small intestines inflamed; liver and other organs quite sound.

Another analogous case is cited by the same author*. The complexion here grew paler after death. The rete mucosum, of a blackish brown colour, was the exclusive seat of the discoloration. The woman, aged 70, died from peripneumony.

Dissection.—Right lung and pleura inflamed; liver pale, and slightly yellowish. Cause of the disease, a spectacle of horror.

Report made to the Medical Circle, by MM. Sedillot, Lafisse, and Chardel, sen. on a Case of Strangulated Crural Hernia, terminating in Artificial Anus. By Dr. Chatard.—The hernial tumor, in a male, aged 44, was allowed to sphacelate; and on exposure of the cavity of the intestine, three lumbrici, contained in it, were extracted. The cure of the wound was fortunately effected by incision of its edges and bandage.

Dislocation of the Humerus, operated by Muscular Contraction, and spontaneously reduced. By Dr. Segalas.—The subject, a lady, aged 20, had, previously to the accident, been enfeebled by puerperal confinement, evacuations, and abstinence. It occurred on change of posture in bed. The reduction was effected by a sudden spasmodic action, and attended with an audible noise.

Medical Statistics.—*Extract of the Bills of Mortality, drawn up by the Twelve Municipalities of Paris, for 1818*.—Notice postponed.

Varieties.—Case of ruptured diaphragm from external violence, in which, although the stomach and intestines occupied the left thoracic cavity, no symptom indicating the accident existed. The rupture had taken place near the insertion of the muscle into the left ribs.

Bulletins of the Faculty, &c. 1819.—No. IV.

On a Preternatural Communication between the Cavities of the Heart. By M. Thibert; and *a notice on the same*. By Dr. Fouquier.—A man, aged twenty-four, always healthy, except that he could never recline on the left side, without inducing dyspnœa, was seized with general weakness and pains in the extremities. Cough, disordered breathing,

* Bulletin de la Societé de la Faculté de Médecine, 1817. No. IX. et X.

pyrexia, diarrhœa, acute pain in the left side affecting respiration, hæmoptysis, œdema of hands and face, ensued, and were partly subdued by general and local bleeding and blisters. Fever, dyspnœa, cough, purging, remained, and were aggravated by intemperance. Anxiety, tumefied face, vertigo, palpitations, and sense of suffocation. Reclination impracticable; thorax sonorous, except in the region of the heart, the extensive pulsations of which seemed to be communicated through a fluid, and varied in situation with that of the patient; pulse small, frequent, wiry, intermittent; the face, once pale, showed a violet tinge on the cheeks, nose, and lips; skin warm and moist; œdema extended to the arms and legs; then diminished universally; increased dyspnœa, delirium, cold sweat; and death, from obstruction of bronchiæ by bloody mucus, on the 45th day.

Dissection. — Œdema of the face, feet, and hands; effusion of reddish serum in the abdomen; intestinal mucous membrane red and thickened throughout; substance of the lungs red and gorged; bronchial membrane smeared with blood; two pints of serum in the pericardium; heart enlarged, and its cavities dilated without parietal thickening, except in the right auricle; foramen ovale open; and a large irregular orifice, its borders composed of yellowish membranous fimbriæ, (and hence supposed to result from gradual destruction of the membranous partition of the heart,) situated at the inferior part of the septum of the auricles, and at the superior-posterior of that of the ventricles, and thus forming a communication between the four cavities. The observations of Dr. Fouquier relate to the absence of the blue colour, which usually prevails where admixture of arterial and venous blood occurs in the heart. He shows, from several histories, that cyanosis is sometimes independent on malformation or disease of the heart, and may exist as a transient, and hitherto inexplicable affection.

Note on an Organic Lesion of the Kidneys, complicated with large Calculus, and Anatomical Anomaly. By Dr. Renaudin. — The right kidney, in this case, was large, adherent to the colic arch, contained much pus and blood, and a calculus as large as a hen's egg, with many friable concretions, and sandy matter. Ureter dilated with purulent urine. Left kidney, a sac filled with pus, but no concretions; ureter much enlarged. A membranous canal, capable of receiving the fore-finger, passed transversely across the spine, was organized like the ureters, and established a free communication between them. — Symptoms. Pain in the loins, abdomen, and in making water, which deposited gravel

mixed with pus and blood; diarrhœa; sleeplessness; hectic fever; latterly, hiccup.—Remedies. Local bleeding, turpentine, diuretics, warm-bath, antispasmodics.

Three Sitzings of the Faculty and two of the Society, during April.—Dupuytren presents the man on whom he operated ligature of the subclavian artery. Circulation re-established, and tumor daily diminishing.

JUNE.—*Original.*—*Memoir on Ileus, and a peculiar Method of treating it.* By J. D. Brandis*. From the Danish.—This plan consists in the persevering application of cold water to the abdomen. The author has employed it in ten cases, with invariable success: two are here narrated. The first appears to have been almost hopeless. Iced water is at the same time given internally. He has seen one case wherein severe ileus subsided on extraction of a carious tooth. Application of cold had previously been prescribed in vain.

Case of rare Disease of the Iliac Bones. By Professor O. L. Bang. From the Danish†.—Notice postponed.

Notice of the Treatment employed by Saiffert in certain Chronic Affections of the Abdomen.—This consists in the use of pills composed principally of ox's gall and soap, and abstinence from acids, eggs, mushrooms, peas, beans, and rice; pastry; fried, salted, fat, and seasoned meat; wines, liquors, and milk or cream coffee. To be continued for several months, and discontinued in winter.

Extract of a Memoir on the Employment of Carbonate of Iron in Scrofula. By P. C. Villemoes‡.—Two cases are narrated wherein the carbonate was successfully given, in pills, to the amount of fifty grains a day. The scrofulous ulcers, first powdered with it, were then covered with lint moistened in saturated solution of sulphate of iron.

Note on a Mode of preventing Cancerous Degeneration of Scirrhus Tumors of the Mamma. By Professor Hallé.—A poultice, composed of linseed meal, the pulp and juice of carrots, hog's grease, and sprinkled, at the moment of application, with from half an ounce to one ounce of pulvis conii, constitutes the plan. It is changed every six hours during the day, and again at bed-time. Sometimes the carrot is omitted. The Professor has employed it for six years with unvaried success, and once advantageously in open cancer. For internal use, he prefers, in all cases, the powder to the extract of conium.

* From the first volume of the *Nova Acta Regiæ Societatis Medicæ Hafniensis*.

† From the same.

‡ From the same.

*Some new Therapeutic Facts, extracted from a Journal published at St. Petersburg, under the title of Medico-Physical Repository**. Translated by M. Martini.

1. *Treatment of Scrofulous Fistulæ by Muriate of Zinc†*. By M. Papenguth.—In a case here detailed, this preparation was given internally, and applied, by occasional immersion and constant lotion, to the diseased limb, with perfect success. Several other instances of its efficacy are adverted to.

2. *Employment of Ballota lanata (woolly horehound) in Dropsy*. By Dr. Rehmann.—This plant, when in vigour, possesses in its stem, leaves, and flowers, a powerfully diuretic property; and is represented as eminently, and indeed always efficacious, in cases of dropsy independent on organic change, and as, even in those of an opposite nature, affording relief. Two ounces of the plant, coarsely powdered, are boiled in two pints of water to one. Half an ounce of tincture of orange peel, or of canella, one drachm of sulphuric ether, and a few drops of tincture of opium, are then added, and half a glass taken every two hours. Its operation usually commences from the third to the fifth day. When the fluid is evacuated, a painful sensation sometimes occurs in the hypochondria. The decoction is then to be discontinued or reduced, or may be advantageously combined with a tonic.

3. *On the Employment of Bitter Almonds in Intermittent Fever*. By Dr. Mylius.—This remedy is administered in the form mentioned below‡, and commonly preceded by an emetic. Out of twenty-seven subjects labouring under quotidian and quartan fevers, two were cured after the second dose, four after the third, nine after the fourth, four after the fifth, four after the sixth, two after the seventh, one after the eleventh, and one after the twelfth. They suffered neither relapse nor consecutive disease. The effects of the almonds probably attributable to the Prussic acid which they contain.

* Russische Sammlung fur Naturweissen-schaft, &c.

† To prepare this, a quantity of zinc was dissolved in two ounces of muriatic acid diluted with four ounces of distilled water; the mixture exposed to a gentle heat for four days, and then filtered. Ten drops of this solution were given in peppermint-water, twice a day, to an adult; and for a bath it was used very largely diluted with tepid water.

‡ R Amygdal. Amar. ʒiiss. seu ʒii.

Exactè terantur in mortario lapideo. Addantur

Aquæ Fontanæ, ʒiii. Fiat Emulsio.

This is to be taken one hour before the access of the fit.

Synonymy of Plants mentioned in the Works of Hippocrates. By Dr. Paulet.—This comprehends an enumeration of near four hundred plants, and is obviously incapable of being analysed.

Varieties.—Beneficial Effects of Gymnastic Discipline on Health. By M. Amores. Several Instances of Convulsions from Intestinal Worms. By M. Mangon.—In a man, aged fifty, destroyed by ileus, the stomach contained sixty lumbrici, and its parietes were perforated in more than one hundred places. Many were found in the intestinal canal of a boy, aged ten, similarly affected. In two cases, accompanied with coma and vertigo, cerebral effusion was also found. Five worms had, in one of these instances, penetrated into the peritoneal cavity.

Bulletins of the Faculty, &c. 1819. No. V.

Report on the Moveable Inodorous Privies of MM. Caze-neure and Co. By M. Renaudin.—Notice postponed.

Report of the Contest for the Situation of Chef des Travaux Anatomiques to the Faculty, &c.*

Two Sitzings of the Faculty and two of the Society, during May.—In one of the latter (May 6th) Dupuytren announces that the man in whom he tied the subclavian artery died from compressed brain, ten days after the operation, when the pulsation of the tumor had entirely ceased. An abscess was found in the posterior lobe of the cerebral hemisphere, corresponding to the aneurism. Chaussier reports three cases of gastric perforation in women dying in child-bed, and promises to give their etiology. Leroux, a case of fatal pericarditis consequent on metastasis of gout in the knee joint†.

MEDICAL MAGAZINE‡.

This is a monthly journal. It consists, in general, of four departments:—Analytical review; bulletins of the Atheneum of medicine; analysis of French and foreign journals||; and a short account of new publications, under the title of Medical Bibliography. There is sometimes a fifth, termed

* See REPOSITORY, Vol. XII. p. 526.

† The analysis of the various journals for the last six months of 1819 will be given in our next Number.

‡ Bibliothèque Médicale, ou Recueil Périodique d'Extraits des meilleurs Ouvrages de Médecine et de Chirurgie. Par une Société des Médecins. The principal editor is Professor Royer Collard. It has gone on for sixteen years. The present is the sixty-third volume.

|| The French journals analysed are the New Journal of Medicine, &c.; the General Journal of Medicine, by Sedillot; and the Clinical

Medical Varieties*. Three numbers form an octavo volume of about 430 pages.

JANUARY, 1819. *Bulletin of the Atheneum of Medicine*†.

Two Sitzings of the Society during November 1818.—The case of a woman is reported, who died, in her ninth labour, from rupture of the vagina near its junction to the uterus.

Cases of Apoplexy, with Embarrassment of the Tongue and a Cyst in the Brain. By Dr. Patissier‡.

Periodical Jaundice, accompanied with some Symptoms of Hepatitis. By Dr. Martinet.—A healthy woman, aged 53, was seized, in consequence of a moral affection, with jaundice and symptoms of hepatitis, of seven days' continuance. This attack was renewed every month, at the menstrual period; and the intervals, very short, were passed in perfect health. The paroxysm invariably began with pain in the soles of the feet, extending gradually upwards; and if leeches were not applied to the anus and right hypochondrium, abdominal pain and hepatitis ensued; but the mischief was averted by this timely evacuation. At the age of 57 the attack recurred every five or six months; at 61, the attendant jaundice disappeared. Digestion, at other times good, was much disordered during the attack. The disease still continues.

Medical Varieties, unimportant.

FEBRUARY. *Bulletins of the Atheneum, &c.*

Two Sitzings of the Society during December 1818.—12th. Several observations on the efficacy of nitrate of silver in epilepsy are reported. Parent adds, that he has been compelled to discontinue its employment in consequence of the constant colic and emaciation induced by it.—26th. Brichteau has found, on dissection of several epileptic subjects, ossifications of the dura mater lining the vertebral canal. A memoir of Dr. Rivet read, entitled, "On the

Annals of the Society of Practical Medicine, of Montpellier: the German, the Journal of Practical Medicine, by Hufeland: and the English, the Medical Repository, and Medical and Physical Journal.

* The varieties, as commonly uninteresting, we shall rarely have occasion to notice.

† The Bulletins, regularly published, consist of the Reports of the Sitzings of the Society, held every fortnight, and cases and memoirs presented to the Society, entitled, Bulletin de l'Athénée de Médecine de Paris. Editor, M. Roche. Whatever may be interesting in the former, we shall extract; and regularly notice all the latter. The other three departments of the Bibliothèque obviously do not come within our plan.

‡ See REPOSITORY, Vol. XI. p. 318.

Crying and Weeping of Infants, considered as the Cause of Bronchocele and Idiotism." Since the re-union of Valais to France, the inhabitants, encouraged by the French authorities, instead of gorging their children in a morning with food, and leaving them at home during the day, as heretofore, in negligence and filth, and constant tears, carry their cradles with them to the fields; and, in consequence of this change, a marked diminution of the number of goitrous and idiotic children has, within eight years, been effected.

Cases of Epilepsy and Somnambulism. By Dr. Martinet.—

First Case.—A man, aged 25, had become epileptic, at 13, from terror. At 19, the fits ceased, and he was seized with somnambulism. The fits recurred, and both were removed by cold affusion. At 21, the epilepsy returned, but without the former sensation of epigastric heat. It ceased, and again appeared. At 25, he found himself, one night, on the roof of his house, drenched with rain. The epilepsy and somnambulism were eventually relieved by venesection and repeated application of leeches along the spine.

Second Case.—A male, seized with perfect insensibility, at the age of 10, from terror. Somnambulism ensued, commencing with epigastric heat, which ascended to the head, and recurred every fortnight. At 21, severe epilepsy, which, with the somnambulism, resist every remedy.

Case of Arachnitis from an external Cause, with Fracture of the Cranium. By Dr. Martinet*.

Case of Mania, accompanied by Apoplecticiform Attacks. By Dr. Vallerand-de-la-Fosse.—A barrister, of bilious temperament, became, in consequence of severe losses and disappointments, furiously insane. During his residence in an asylum he grew more calm, his fever subsided, and his natural corpulence much reduced. Hopeless indifference and imbecility ensued. Some time after removal to a house for incurables, he became more corpulent than ever, and apoplexy was menaced; but the symptoms yielded, in part, to evacuants and abstinence. To satisfy his cravings, and repress the fury and agitation consequent on refusal, food was sometimes unduly allowed. The symptoms increased, he became tottering, and apoplexy was announced by loss of the use of the lower limbs and senses. Cerebral congestion again relieved by evacuants, the patient remained less sensible to external impressions than before. During two years, the congestions returned, at intervals, followed

* See REPOSITORY, Vol. XI. p. 510.

by imperfect apoplexy, with distorted mouth, and weakness of limbs necessitating confinement to bed. These attacks increased in frequency, were attended with fever and involuntary evacuations, and terminated in paralysis. The last violent attack was signalized by complete annihilation of motion, great dyspnoea, drawing of the right side of the face, impracticability of deglutition, and suffocation. Death followed. On dissection, a pint of limpid serum in the cerebral ventricles, the parietes of which, hard and resistant, did not collapse. No trace of congestion, or other morbid change in the brain.

MARCH.—*Bulletins of the Atheneum, &c.*

Two Sitzings of the Society during January 1819.—Nothing remarkable.

Observations on Club Feet, addressed to the Atheneum. By M. D'Ivernois; with a *Report on them.* By MM. Parent, Pavet, Patisier, and Bricheteau.—Two cases are communicated, wherein this deformity was completely remedied by the application of a simple piece of mechanism, invented by D'Ivernois. The report is very long, and comprehends inquiries on the nature and causes of club foot, and the different plans of treatment hitherto employed for its cure. No dislocation of the bones commonly exists in these cases, and the ankle-joint is not always implicated in the deformity. The cause of congenital club foot is supposed by D'Ivernois to consist in defective equilibrium of muscular action. The report concludes with a description of the various instruments employed by D'Ivernois, a recommendation of his plan, and suggestions respecting the useful applicability of mechanical inventions to other cases of surgery.

Erysipelas of the Face, complicated with Gastro-adyamic Fever.—*A case communicated to the Atheneum, on account of a new method of rubefaction.* By Dr. Lacombe.—A severe case of facial erysipelas, which succeeded to suppuration of the ear, consequent on exposure to vicissitudes of temperature, and yielded to local blood-letting, blisters, and appropriate treatment. Sprinkling of mustard on the lower extremities, after immersion in warm water, aided by warm covering, excited, in this case, a redness and revulsive irritation, permanent, by no means intolerable; hence preferable to sinapisms, and applicable to different phlegmasiæ of the face, and neuroses. Frequent ablutions with cold water, and subsequent dressing with tallow, are described as constituting the best treatment in the ulcerations which occur in the erysipelatous, aged, and paralytic; and powdered bark of mezereon, as equivalent to blisters and cautery in

maintaining an habitual drain, more economical and far less inconvenient. It is to be daily inserted in the centre of the sore, and confined by plaister and bandage.

Medical Varieties.—Uninteresting.

APRIL.—*Bulletins of the Atheneum, &c.*

Two Sitzings of the Society during February.—Dr. Martinet communicates a case of pulmonary catarrh, with purulent expectoration, of six years' standing, which, after the failure of every other treatment, was signally relieved by grain doses of turpentine, and fumigations of balsamic ether of Tolu : * and Dr. Duparque, a case of hæmoptysis, wherein these vapours exerted an instantly beneficial influence.

Case of Measles, the eruption of which was preceded by severe symptoms, and effected by the assistance of a warm bath. By Dr. Patissier.—This occurred in a lady, aged 29. Leeching and antimonials probably assisted the operation of the warm bath, to which, however, the fortunate result is mainly attributed, and which Patissier thinks is not sufficiently often employed in these cases.

Note on the Fatal Disease of M. Tixier, Anatomical Assistant to the Faculty of Medicine. By M. Bricheteau.—This young man died of malignant fever, which had been induced by excessive application, amid the putrid effluvia of the dissecting room; was attended by delirium, subsultus tendinum, and picking of the bed clothes, and terminated by intestinal hæmorrhage. This symptom is mentioned by Hippocrates as invariably fatal in such fevers.

MAY.—*Bulletins of the Atheneum, &c.*

Two Sitzings of the Society during March.—M. Leveque Lassource presents the fragment of the umbilical chord of a foetus which died at seven months. One point of the chord displayed a contraction, countenancing the idea of an obliteration, which had destroyed the child, by obstructing the passage of blood from the mother.

Employment of Nitrate of Silver in a case of Epilepsy. By Dr. Parent.—The birth of this subject took place under peculiar circumstances of privation and distress; yet she enjoyed health for some years, when, after suppressing habitual perspirations of the feet, by application of cold, and

* The following is the formula of this preparation, as given in the Paris Pharmacopœia:

℞ Balsami Tolutani, ℥ii;

Ætheris Sulfurici, ℥i.

Macerentur per biduum in lagunculâ ritè obturatâ; transfundatur liquor et servetur ad usum.

yielding to solitary indulgences, she was suddenly seized with epilepsy. The paroxysm recurred about sixteen times in the year; were preceded by irritability and congestion of the head, and attended by insensibility, trismus, general convulsions, and never lasted longer than ten minutes. Neither the general health nor menstruation were disturbed. After every other remedy had failed, the nitrate of silver was prescribed, and continued fourteen months, with a plan of fatiguing exercise, and diet, at first vegetable, afterwards animal. The result was an interruption of the attacks for five months: they then returned, but considerably diminished in frequency, duration, and violence; and the patient was now sensible of their invasion. The medicine was ultimately abandoned, in consequence of the severe colic pains and diarrhœa induced by it.

Case of penetrating wound of the right Knee-joint inflicted by a pointed and cutting instrument. By Dr. Mounoury.—The wound occurred, in a man of 28, on the external side of the patella; was attended with little pain, hæmorrhage, or tumefaction, and did not prevent motion. Eight days afterwards inflammation came on: there remained then only a small orifice in the centre of the wound, which might admit a probe, and was itself in the centre of a tumour rising on a level with the patella. Fluctuation was evident; the integuments unchanged. Cataplasms were applied; the tumour advanced; and, on sudden extension of the limb, a stream of mixed serum, pus, and synovia, gushed from the central orifice, and all the symptoms disappeared. Twice, within a few days, they reappeared, and again subsided on the escape of similar fluid; in the first instance on the introduction of a probe, in the second on flexion of the limb. After this, the same alternation of increased action, and subsidence, several times. Eventually, the joint recovered its natural volume, form, and powers, and the cure perfected in a month.

Case of Dislocation of the Arm externally, capable of being produced by the slightest effort, even by the muscular power alone, and of being reduced at pleasure. By the same.—The nature of this case is sufficiently explained by the title. The accident occurred first, at the age of 12, in a boy's right arm, previously weakened and wasted by convulsions. No morbid change appeared to have taken place, after a lapse of five years, in the articular surfaces.

Case of Extroversion of the Bladder. By the same.—Observed in a male of 27. Neither testes nor umbilicus could be discovered. The malformation consisted in a red oblong tumour, transversely situated at the lower part of the abdomen; a second tumour below, separated from the first

by a depression, and by a deep groove from three inferior; the two higher of which rounded, covered with white, smooth, delicate skin, elastic, sensible, were placed on the same level, and divided by a kind of raphe. Immediately below these arose a small projection resembling the penis, furnished with a prepuce, imperforate, and inerectile. Towards the base and right side of the tumour, which frequently bled on the slightest friction, an oozing of urine, from a convoluted groove; but the orifice could not be detected. Nothing similar was observed on the opposite side. At the age of 15, a tumour had formed, from time to time, below the penis-like appendix, and, spontaneously bursting, given issue to a great quantity of urine. The attendant pain immediately subsided, urine flowed awhile from the orificè, which again closed, and the tumour reappeared to discharge itself as before. Meanwhile, the oozing of urine from the right ureter never ceased. This tumour had not recurred for twelve years. The man was of middle stature; complexion pale; voice feeble; muscles slightly marked; beard thin. A few hairs scattered around the abdominal tumour. Sexual appetite undeveloped.

Medical Varieties.—Remarks on the efficacy of actual cautery in wounds inflicted by a rabid animal, and description of the necessary apparatus, by M. Rigal.

JUNE.—*Bulletin of the Athenæum, &c.*

Two Sitzings of the Society during April.—M. Trappe reports two cases of poisoning by digitalis, given to the amount of one drachm in twenty-four hours. In one of the patients, a child, the symptoms were very violent, but subdued by an ipecacuanha emetic. Messrs. Leveque and Bricheteau give their opinion, that the contraction of the umbilical chord, in the case mentioned last month, occasioned the death of the child, and claim the attention of accoucheurs to this hitherto unnoticed accident.

Cases of Gangrene from Ossification and Obliteration of the Arteries. By Dr. Avisard.*

UNIVERSAL JOURNAL OF MEDICAL SCIENCES.†

A monthly publication, without particular arrangement; memoirs, cases, and analytical review, are indiscriminately

* See REPOSITORY, Vol. XII. p. 250.

† Journal Universel des Sciences Médicales. The editors are twenty-six, many of deserved celebrity: Dr. Regnault, formerly a French refugee in London, the principal conductor. It was commenced in 1816. The present Number is the beginning of the 13th volume.

mingled. The bulletin of the Medical Society of Emulation* forms part of it, but does not regularly appear. Three numbers are included in an octavo volume of about 380 pages.

JANUARY 1819.—*Memoir on Peritoneal Inflammation.* By Professor Portal.†

Notice on Acupuncture, and Medical Observations on its Therapeutic Effects. By Dr. Haime.—After some observations on the origin of this practice, and extracts from the memoir published respecting it, by Berlioz‡, Dr. Haime details three cases of its almost instantly successful application in obstinate convulsions attended with hiccup and chronic rheumatism. In some cases he has plunged the needle so deeply into the epigastrium as certainly to wound the stomach, without bad consequence. Berlioz has employed this remedy, with success, in hooping cough, contusions without ecchymosis, and pains consequent on inordinate exertion; and proposes to perforate the right ventricle of the heart with the needle, in cases of asphyxia, and make it the medium of galvanic excitation. The Chinese apply it in coma, apoplexy, dysentery, and various congestions of the head and abdomen. In paralysis, Dr. Haime has not found it to succeed. In mode of operation, it is neither evacuant nor revulsive; since it induces no discharge, and the introduction of several needles is not more efficacious than of one. Berlioz thinks that it acts by stimulating the nerves, and restoring a principle of which the pain has deprived them. It is unattended with danger or inconvenience. Its pain is trifling.

Notice on the state of Medicine in Italy. Second Journey. Article III.—Written by Dr. Chaumeton, lately deceased: very interesting, but unsusceptible of analysis.

Bulletin of the Medical Society of Emulation. §

Considerations on the Diseases which principally affect the Gall-bladder. By Dr. O'Ryan.—We have a suspicion that this paper was originally written in English, but cannot trace it to its source. The diseases of the gall-bladder are either common to it with the adjacent viscera, or peculiar. Of the first description is inflammation of the liver, extend-

* Edited by M. Breschet. It was formerly inserted in Leroux's Journal.

† See REPOSITORY, Vol. XI. p. 244.

‡ Mémoire sur les Maladies Chroniques, les Evacuations Sanguines, et l'Acupuncture. Par L. V. J. Berlioz, D.M. Paris, 1816.

§ Bulletin de la Société Médicale d'Emulation, Redigé par M. Breschet.

ing to the gall-bag and ducts, and inducing, by their thickening and contraction, incurable jaundice. The intensity of the jaundice, in such case, proves that the secretory functions of the liver are not impaired; and the absence of epigastric pain, that there are no gall-stones. Extension of pyloric inflammation may induce similar effects; as may also tumours of the liver, pylorus, or pancreas, by pressure on the ducts without occasioning alteration of their structure. Jaundice, thus produced, may be distinguished from the spasmodic or calculous variety, by the attendant inflammatory symptoms, pain, and preceding emaciation. The prognosis is then unfavourable. The treatment should consist of mercurials, saline purgatives combined with bitters, or opium, if diarrhoea occur. Spasmodic or calculous jaundice is announced by sudden and acute epigastric pain; vomiting; sometimes rigors subsequent to the pain, not previous, as in inflammation; sweats; pulse little accelerated. The pain radiates to the right side and back; is accompanied by irregular spasmodic twitchings; though never absent, increases by paroxysms; and is relieved by flexion of the trunk upon the thighs: urine high coloured; *fœces* white; bowels irregular, more frequently loose than constipated. The pain, moreover, is mitigated by pressure. Treatment: hot fomentations or baths; opium, in large and frequently repeated doses, till relief ensue; purgatives; injections of starch and opium. Effect of emetics doubtful. The pain relieved, a dose of calomel, followed by neutral salts, every 3d day; and, on restoration of the biliary secretion, bitters thrice a day. Gall-stones sometimes induce inflammation of the duct, which is signalized by frequency of pulse, and requires active depletive treatment. The mechanism of the passage of a gall-stone through the duct is explained nearly in the same manner by O'Ryan as Dr. Pemberton. Were it dependent on contraction of the duct itself, opium would rather retard than expedite the process, and inflammation more frequently supervene. Thus also the doubtful efficacy of emetics, in such cases, is explained; for as they operate principally by increasing the flow of bile, it is evident that they can only accelerate the expulsion of the calculus when the duct is completely obstructed. The prognosis here is commonly favourable; yet it should be remembered that rupture of the duct may occur. Bilious diarrhoea augurs well, as does violent itching. Slight variations of the jaundice often happen without decisive result. Continued jaundice, acute and fixed epigastric pain, increased nausea, emaciation, and white *fœces*, may be regarded as unfavourable. Dr. O'Ryan possesses a concretion, of one inch and a fourth in diameter,

passed by a patient after five months' of severe suffering. From its volume, it is supposed to have made its way into the duodenum by the process of ulceration, consequent on inflammatory action. An engraving, illustrative of the passage of the gall-stone, which strikingly resembles that given by Dr. Pemberton, accompanies this paper.

Case of Inguinal Aneurism cured by compression. By Dr. Albers.*

FEBRUARY. — *On Sirium, a newly discovered metal.* — Described in the English philosophical journals.

On Hydroguretted Carbonic Oxide. — From Thomson's *Annals of Philosophy*.†

State of Vaccination at Guadaloupe and Martinique. — Small-pox appears to be extinct in these islands: in the latter, the disease has not shown itself for ten years.

Reflections on the Superintendence of Mineral Waters. By M. Labbat, Intendant of those of Cauterets. — Without interest.

Letters from Broussais, Caffin, and Boisseau, to the Editor. — Merely controversial.

Veterinary Medicine. — This paper consists of several cases observed in the veterinary schools of Alfort and Lyons. We shall revert to them. Programs of a contest for the Professorship of Anatomy and the External Knowledge of Domestic Animals, and of another for that of Farriery and Veterinary Jurisprudence in the Royal School of Rural and Veterinary Economy of Alfort; the latter to be held April 1st, the former, May 1st, 1819. — These also we shall notice.

Bulletin of the Medical Society of Emulation.

Report made to the Society by M. Villermé, on a Mémoire entitled Observations on Abdominal Wounds, with Cases. By G. S. Pattison, Teacher of Anatomy, Physiology, and Surgery, at Glasgow. These cases, as belonging to English literature, we shall very briefly analyse. Few of our readers are probably acquainted with them. The first‡ was the case of a woman aged 23, supposed to be labouring under the effects of a concretion in the colon. Its removal was determined on. The abdomen opened, a large hydatid cyst was found adherent to the inferior surface of the liver and coeliac trunk; to extirpate it was impracticable; the internal

* See *Medico-Chirurg. Transactions*, Vol. IX. Part I. page 26.

† For August, 1818.

‡ The Editor was resident at Glasgow when this daring operation was performed, and had all the particulars communicated to him by his friend Dr. Robert Watt, who witnessed its execution.

surface was irritated and brought into contact by suture; inflammatory symptoms ensued, but yielded to proper treatment; considerable discharge of pus and serum took place from the wound, and continued four months; aphthæ of the mouth were removed by solution of borax in decoction of oak-bark. The woman regained perfect health, and has twice born children since.—In the *second case*, the abdomen of a stout man was opened for the removal of a supposed intestinal concretion; but the tumour being found very deeply situated, the enterprise was abandoned. No alarming symptom followed this extensive wound; the man got well, and survived the operation six months. The French Surgeon criticises severely the diagnostic inaccuracies and practical temerity of Mr. Pattison: he contends that gastrotomy should be restricted to cases of extra-uterine pregnancy, ruptured uterus, or introduction of foreign substances into the stomach, which cannot pass the pylorus; and that where one person is saved, many will be destroyed by it. The inferences drawn from the result of operations on domestic animals are not correctly applicable to the human subject. An instance of successful extirpation of a scirrhus ovary is quoted from Laumonier*. But here the intestines adhered to the peritoneum in the whole circumference of the tumour; consequently they did not present at the wound, and effusion of pus into the abdomen was prevented. To this circumstance Villermé ascribes the fortunate result.

Case of Popliteal Aneurism, operated on according to Hunter's method. By Dr. Aussandon. Subject aged 42. Nothing peculiar in the case or operation, which was performed July 6th.—10th. Suppuration established; erysipelatous inflammation to crista ilii; tumour reduced.—12th Erysipelas diminished.—13th. A sinus discovered in direction of the sartorius; compression applied; and 18th, quite obliterated.—21st. Erysipelas of the face, with symptomatic fever; wound healthy.—23d. Eruption nearly gone; ligature detached.—Aug. 10th. Cicatrix complete; a small firm knot has replaced the aneurism; the limb not visibly wasted; no pulsation in the tibial artery.

MARCH.—*Reflexions on some Physiological Views of* MM. Broussais and Lallemand.—Almost exclusively critical, and destitute of facts.

On Oysters, considered as Food and Medicine.—(Extract of a thesis published in 1818, at Paris. By M. Pasquier.)—The enumeration of the varieties of this mollusca, and description of its anatomical structure, its abode, and method

* Mém. de la Société Royale de Médecine. Années, 1782—1788.

of preparation by parking, we cannot here enter into. The open or feebly closed state of the shell, and soft milky condition of the body, especially at the fimbriated border, indicate disease. The water of the oyster contains muriate of soda, muriate and sulphate of magnesia, sulphate of lime, and a large quantity of animal matter and osmazome. The animal itself consists of water, a little solid matter formed of gelatine, mucus, and a peculiar animal substance, into which phosphorus enters as an element, osmazome, salts resembling those contained in the water, phosphate of iron and of lime. It is unaltered by milk; dissolves partly in the diluted vegetable acids; and is rendered opaque and firm by alcohol. It is not, in general, capable of forming the exclusive nutriment of man. Taken fresh, it excites the appetite and digestion; cooked, it becomes hard and indigestible, and is particularly unwholesome when pickled. Pepper, lemon-juice, verjuice, and vinegar, improve its flavour and salubrity; and it doubtless possesses an aphrodisiac property. It may be advantageously eaten in hypochondriac and hemorrhoidal affections, chronic diarrhoea, jaundice, chronic gastritis, (which frequently simulates pulmonary phthisis, scurvy, scrofula, and rickets) chlorosis, and pregnancy attended with great gastric disorder. The best wine to take with oysters is weak white wine. Sometimes, when not previously parked, they disorder even healthy persons, and excite a cutaneous eruption resembling that produced by ingestion of cockles and muscles altered by putrefaction.

History of a Family Predisposition to Hæmorrhage.—By Drs. Buel.—Inserted several years since in the English Medical Journals.

Letters from Renauldin and Merat to the Editor.—Controversial.

Necrological Notice of Montegre. By Broussais.

Bulletin of the Medical Society of Emulation.

Observation on some Symptoms of Abortion complicated with Peripneumony. By M. Levieux, Surgeon-Accoucheur.—There exists a connection particularly intimate between the uterus and lungs; so that the affections of one exert a signal influence on the state of the other; and either of these parts may suffer sometimes so far that the effect is much more decided in the sympathetically, than in the primarily affected organ. Of this, a case is given in illustration. The subject, aged 32, was in the 3d month of her 10th pregnancy, seized with uterine hæmorrhage, consequent on a moral affection, and the other symptoms of abortion. General plethora prevailed, and venesection was employed with good effect.

Acute peripneumony now came on, with delirium, violent headach, and hæmoptysis. Bleeding again employed with relief; but all the symptoms were re-produced by mental agitation. Topical bleeding; the thoracic symptoms subsided, and uterine pains, with discharge of mucus, recommenced. Blisters to the legs, and an oily embrocation to the abdomen; the signs of abortion again suddenly ceased; and the pulmonary affection recurred with delirium and intense frontal pain. An emetic was given with decided relief; pain and fever gone; weakness alone remained; the uterine orifice, previously beginning to dilate, again closed, and resumed its original elevation. The cure was completed by cinchona and bitters; cough and thoracic pain, which remained, were removed by appropriate treatment; and the lady was safely delivered at the due period. A large indurated coagulum, apparently of old formation, was found strongly adherent to the uterine surface of the placenta:

Reflections and Observations on Hypogastric Lithotomy, (the high operation for stone.) By M. Souberbielle.—This operation the author considers as preferable to every other for the removal of stone. It has succeeded in his hands after the common operative process has been tried in vain. He has performed it within a year on 27 male subjects, from 15 to 86 years of age, without the aid of injections or retention of the urine in order to distend the bladder. Its advantages are thus summed up:—It does not expose to the risk of hæmorrhage, urinary fistula, incontinence, impotence, wounds of the rectum, neck of the bladder, and prostate, urinary collections and gangrene in the course of the wound and scrotum, false passages, nor retention of urine consequent on spasms of the neck of the bladder or coagula retained in it. The finger, introduced by the hypogastric wound, may traverse the interior of the organ, and ascertain the position of stones or other foreign substances, which require extraction, whatever be their size, number, or situation; and the state of its internal membrane. This operation, in addition to the preceding advantages, exclusively its own, is less painful, and consequently induces less general disturbance than that commonly employed; and is peculiarly applicable in females, as preserving them from incontinence of urine, more terrible than the original malady, to which the operation by the vagina frequently gives rise. Mr. Carpue has witnessed, with expressions of admiration, this method of operating, as performed by Dr. Souberbielle*.

* See Review of Carpue's "History of the High Operation for the Stone." *REPOSITORY*, Vol. XII. page 314.

Case of Division of the Penis into two equal Parts from a Wound of the Organ. By Dr. J. Ristelhueber.—A man, aged 50, driven from his residence by distress during the blockade of Strasburgh, was seized by the Cossacks, and, under the suspicion of being a spy, dreadfully mutilated. The penis was slit, and the scrotum divided and cut in various directions. The man, on liberation, contrived to suppress the hæmorrhage with charpic and vinegar; and the wound healed in six weeks. The penis continues divided in its whole length, so as at first sight to resemble two; the internal surface of each portion has the aspect of mucous membrane, and no vestige of the urethra exists; the testes are separated by the division of the scrotum, which presents several cicatrices; below this division and between the testes there is a triangular and funnel-shaped space, the parietes of which, resembling mucous membrane, are continuous with the urethral canal; and from this the urine issues. Erection is never experienced; incurable impotence results.

APRIL. — *Critical Sketch of the State of Medical Literature in Germany, from 1805 to 1815.*—Article I. Very long and anonymous. It comprehends History of Medicine, and Anatomy and Physiology, and a short review of all the important publications which have appeared in Germany on these subjects.

On Courage in Diseases. (Extract from a Prize-Memoir, published by Dr. Campardon, in August, 1818.)—Courage in a patient under a disease augurs favourably, and expedites recovery: yet in some thoracic affections, undue confidence is sometimes indicative of fatal changes in the respiratory organ. Women frequently exhibit unconquerable firmness. The hope and confidence of the patient in the Physician and his medicine are frequently more efficacious than either: and this art of inspiring them, more valuable and salutary than all the drugs of the pharmacopœia, daily operates extraordinary cures in the hands of the philosophic Physician; while it teaches him to aspire above the beaten paths of routine and empiricism.

Observation on an Acute Disorder of the Digestive Organs, occasioned by Ingestion of Oysters. By Dr. Zandyck.—A quantity of oysters arrived at Dunkirk, from Normandy, in the beginning of September; and, being the first received that season, were rapidly disposed of there, and in the adjacent country. Colic, diarrhœa, and cholera-morbus immediately prevailed, and suspicion of the cause at length excited, Dr. Zandyck was commissioned to inquire into the subject. Several of the oysters which he examined displayed the following characters: the different membranes were re-

tracted towards the body of the animal, giving it a disagreeable aspect; the contained water left a slimy deposit, as well on the oyster as the shell, and had a decidedly brackish taste. In others, taken from the same cargo, the membranes, perfectly developed, covered nearly three-fourths of the lower valve; and their water, although less loaded with heterogeneous matter, was as unusually salt. In some individuals, the ingestion of five or six of these oysters sufficed to produce violent effects; while by others, a far greater number had been eaten with perfect impunity. No more evident cause of the mischief appearing on examination, it was attributed to the state of weakness and languor of the oyster, which had not sufficiently animalized the contained sea-water; and, consequently, more to the effect of the liquid than of the animal itself. This opinion was, in Dr. Zandyck's view, confirmed by the success of the treatment, which consisted in the administration of mucilaginous remedies, combined with sedatives.

Observations on Diabetes Mellitus. By Dr. Demours.*

Case of Lodgment of a Metallic Body in the Neck for 43 Years. Communicated to M. Keraudren by a naval officer.—This body was the point of a poniard, with which the subject had been struck in the back of the neck at the age of seventeen. The head subsequently remained fixed, and abscesses repeatedly formed in the vicinity of the cicatrix. At the age of sixty, a black point presented in the throat, and the metallic fragment, much corroded, was extracted with the forceps. The cure was speedily effected, and the patient recovered the motion of his head.

Case of sudden Death from Rupture of the Left Ventricle of the Heart. By Dr. Valentine Mott†.—From an American work.

Aerolite.—Account of one, weighing seven pounds, which lately fell in Russia.

Critical Sketch of Medical Literature in Germany, from 1805 to 1815.—Article II. is occupied by review of works on pathology.

Public Sitting of the Faculty of Medicine of Paris. Dec. 23d, 1818.—At the commencement of each scholar year, one of the Professors of the Faculty delivers a discourse to the students, on the day appointed for the distribution of the various prizes. Royer Collard was the orator on this occasion, and pronounced an oration full of admonition and encouragement to his young auditors.

* See REPOSITORY, Vol. XI. p. 429.

† Ibid. Vol. XI. p. 427.

Report of the Public Sitting of the Society of Medicine, Surgery, and Pharmacy, of the Department of the Eure, held at Evreux, Sept. 28, 1818.—Professor Chaussier presided. A medal of gold, and two of silver, were decreed to three practitioners, who had each presented a memoir on the abuses committed in France in the practice of medicine, surgery, and pharmacy, and on the best means of suppressing empiricism. Fourteen memoirs presented.

Case of Tumour of the Stomach caused by the presence of Cherry-stones in the Organ. By M. Mottet, Surgeon.—Gastric pain, intense headach, loss of appetite, indigestion, vomiting, were the early symptoms. Subject, a male, aged 57. For nearly four years, imperfect and transient relief only had been afforded by medicine; and, when first visited by Mottet, the man was on the verge of the grave. Symptoms at that time: small, hard, intermittent pulse; furred tongue; daily vomiting of a glairy fluid, apparently mingled with minute pus-like filaments; anorexia; sense of weight and pain about the pylorus; intestinal heat; intolerable headach, sleeplessness, and constant thirst; flushing of the cheeks; frightful emaciation. The epigastric and left hypochondriac regions unusually hot, tense, and exhibiting a decided pulsation. Treatment: emollients, internal and external, and gelatinous diet, with great relief. On the sixth day, extraordinary depression, and distaste for food; but exemption from the internal pricking before experienced. Syncope and nausea succeeded. An emetic was given; and 12 ounces of fluid, loaded with pus, and containing several cherry-stones, discharged: a small quantity of the former, with two more of the latter, followed in an hour after. From this time, under a tonic and nutrient plan, the patient gradually and permanently recovered. The period of ingestion of the cherry-stones was unfortunately not ascertained.

Case of Croup, treated by Leeches, Vomits, and Purgatives, and followed by a salutary critical Eruption, with some Reflections on the Employment of Sulphuret of Potash in this Disease. By Dr. Mercier.—The subject, a boy aged 4; the disease violent and far advanced. Treatment: leeches around the neck; antimonial emetic; hydro-sulphuret of antimony with ipecacuanha-syrup and almond-oil; sinapisms to the feet, after friction of them, the arms, back, thighs, and legs, with hot vinegar; large blister to the nucha.—6th. Several pieces of false membrane expectorated: dose of antimonial sulphuret diminished; and at night a general cutaneous eruption; stimulant injections regularly given; and cure completed by two large doses of jalap in syrup of buckthorn. The sulphuret of potash, recently much recom-

mended in croup, Dr. Mercier objects to, as a very nauseous remedy, and consequently difficult of employment with children. All its advantages may be obtained from the antimonial mixture prescribed in this case.

Case of Cancer, terminating in fatal Trismus. From Medical and Physical Journal*.

Chemical Examination of a Fluid found in the Thorax of a Horse destroyed by Pleurisy. By J. L. Lassaigue.—Both in chemical and physical properties this liquid evinced a very close analogy with the serum of the blood. Will be farther noticed.

American Senna.—This consists of the leaves of the *cassia marilandica*, belonging to the natural order of the *lomentaceæ* of Linnæus; class decandria, order monogynia. It is a native of the United States, but has long been cultivated in English gardens. The Americans employ and recommend this plant as quite equal for medicinal use to that imported from Egypt. The leaves of the American plant are smaller: its pods do not admit of substitution for those of the Alexandrian species.

Vaccination.—The successful introduction of cow-pox into Port Jackson, by a Physician from the Isle of France, is here reported.

Bills of Mortality of Paris, for 1818.

Yellow Dye in the Flower of the Potatoe.—Already recorded in English journals.

Prizes proposed by the Academy of Sciences.—A prize of 3000 francs will be given to each of the best memoirs (to be transmitted by January 1st, 1821), on the following subjects:—I. "To determine the chemical changes operated in fruits, during their maturation, and subsequently to that term." II. "To give a comparative description of the brain in the four classes of vertebral animals, and particularly reptiles and fishes, endeavouring to ascertain the analogy of the different parts of this organ, marking with care the changes of form and proportion which they undergo, and tracing as deeply as possible the roots of the cerebral nerves."

Bulletin of the Medical Society of Emulation.

Case of a Woman who became pregnant of Two Children, notwithstanding the Presence of the Hymen, and in whom coitus took place by the Urethra (of course very much dilated), *during gestation.* By Dr. Champion.—In this case, occurring in a woman aged 32, the obstructing membrane, perforated with two minute orifices, which had allowed the

* For October, 1818.

escape of the menstrual blood, was opened by a crucial incision. About an ounce of bloody mucus was discharged: the vagina was naturally large and dilatable; and the two children were safely delivered: the first with forceps; the second by the feet. At the age of 12 this woman, after experiencing attacks of lumbar pain of three days' duration, which recurred every three weeks, perceived a tumour in the right iliac region. It sensibly enlarged, particularly during the prevalence of the pain, and was attended with dysury; hence causing suspicion of vesical calculus. At thirteen and a half, after the third day of the periodical pain, the menses appeared. The blood, black and fetid, flowed in a fine stream for eight days, but only in the erect posture of the body; the abdominal tumour then finally disappeared; menstruation recurred regularly every three weeks, and continued three days, drop by drop; the first was always a day of severe lumbar pain. The first *coitus per urethram* is supposed to have taken place subsequently to conception. The canal was so much dilated as to admit the fore finger with facility. Many instances of fecundation, *sine penis intromissione*, are cursorily adverted to by the writer.

Case of Lymphatic Tumour in the Inguinal Region. By Dr. Payen*.

JUNE.—*Critical Sketch of the State of Medicine in Germany, from 1805 to 1815.*—Articlé III. and last, includes reviews on *materia medica*, surgery, and medical jurisprudence, under the different heads of medical police and forensic medicine†.

Reflections on the Nature and Treatment of Cancer, with illustrative Cases. By Lassere.—Will be hereafter very fully noticed.

Chemical and Physiological Researches on Strychnine. By MM. Pelletier and Cavomtu.—Of this we have already given a short account‡. Will be more fully exposed.

Two Cases of Aberration of the Menstrual Flux. By Dr. Reynal.—*First Case* occurred in a stout subject, aged thirty-two. In her fifteenth year she first menstruated abundantly, without any precursory sign; but the evacuation, about three hours after its commencement, was suddenly

* See REPOSITORY, Vol. XI. p. 512.

† Under the title of "Critical Review of the State of Medicine during the last Ten Years," several articles, closely resembling these in language and arrangement, were published in the 12th and 13th volumes of the Edinburgh Medical and Surgical Journal.—Original department.

‡ See REPOSITORY, Vol. XI. p. 165.

suppressed by terror, and without any bad effect. A month afterwards, a tumour appeared at the centre of the interval between the fifth and sixth ribs of the right side; it was red, painful; became rapidly prominent; and, bursting by a minute round orifice, discharged about a spoonful of white, thick, inodorous pus, and with the pain disappeared. On the morrow there was an oozing of pure blood from the opening, of four or five days' continuance, when the wound closed. But from this time to that of her pregnancy, a period of eighteen years, the orifice regularly opened every month without pain, and discharged a quantity of blood. The menses had never recurred. Six weeks after her confinement, menstruation was restored in the natural way; and the discharge from the side, which had never shown itself during pregnancy, was permanently suppressed.

Second Case.—A woman, married at nineteen, had born seventeen children, the last in her thirty-eighth year: she had never menstruated regularly. At sixteen she had been attacked with slight hæmorrhage from the left nostril, which continued three days, and ceased suddenly as it came. Henceforth the bleeding recurred every month except during pregnancy. The “nasal menstruation” subsided at the age of forty-two. Health unimpaired.

Observations on a Fracture of the Humerus, effected by Muscular Contraction. By Dr. Haime.—Accident occurred to a healthy man aged twenty-five, in the act of throwing a stone. Bone fractured about one third from its lower extremity. Re-union accomplished in sixty days.

Case of Acute Cystitis, terminating by Suppuration, in a Female Child ten weeks old. By Dr. Lesaive.—Symptoms: continual crying; vomiting; violent colic, with variously coloured feces; urine scanty, and voided with pain; hypogastrium tense and tender; sleeplessness; intense fever; tongue furred. Treatment: an emetic, sedatives; emollient baths and cataplasms; injections per anum.—4th day. Symptoms dreadfully aggravated, and bladder much distended; incessant vomiting; face and breast œdematous; respiration stertorous. A small catheter, as the last resource, was introduced with difficulty: four ounces of pus were immediately discharged, and afterwards a great quantity of urine, with perfect relief. Next day vomiting subsided; fever and œdema lowered; abdomen less hard and painful. A little purulent urine twice voided, and some black fetid feces, by aid of injections.—6th. Little urine voided, and abdomen more tense. A quantity of thin offensive pus, followed by urine, drawn off by the catheter, which was employed with similar result on the two succeeding days.

Injectons into the bladder were then had recourse to, and the child recovered.

Case of Abscess of the Lung, bursting externally: observed at the Naval Hospital of Cherburgh, and communicated by M. Keraudren.—The patient had long suffered from a pulmonary affection, signalized by hectic fever, and a large tumour on the lower part of the right side of the thorax, evidently containing a portion of air, retreating on pressure with a distinct noise, and diminishing on the occasional expectoration of pus. The tumour bursting spontaneously, discharged a great quantity of pus and air, which, two days before death, was replaced by hæmorrhage, at first slight, afterwards abundant. On hasty dissection, the right lung, except at its superior part, which was tuberculous, converted into a vast purulent cyst. The pulmonary substance disorganized, destitute of air, flattened, and adherent to costal pleura and mediastinum. The pus escaping between ninth and tenth ribs, had formed a large abscess beneath the skin.

On the Yellow Fever which prevailed in 1817, at New Orleans, and in 1818, at Martinique. By Dr. Valentin.—A friend of this writer (Dr. Lefort), after having first been, from *theory*, a decided contagionist, espouses, from *experience*, the opposite side of the question, and ingeniously acknowledges his error. Valentin himself is evidently of the same opinion. We shall revert to his communication hereafter.

COMPLIMENTARY JOURNAL OF THE DICTIONARY OF
MEDICAL SCIENCES*.

This Journal appears monthly. No particular arrangement is observed in the distribution of the articles. Original and analytical are mingled together. Four numbers constitute an octavo volume of nearly 400 pages, very closely printed.

JANUARY, 1819.—*On the more severe consequences of Parturition and Milk Diseases.* (First Article.) By Professor Foderé. Intended as a sequel to the article *Couche*, in the Dictionary of Medical Sciences†.

* Journal Complementary du Dictionnaire des Sciences Médicales. The editors are thirty-two in number. Among them we recognize with pleasure many distinguished names; Alibert, Boyer, Breschet, Bricheau, Chaussier, Cloquet, Foderé, Hallé, Jourdan, Lobstein, Meckel, Percy, Pinel, Richerand, Virey. It was commenced in July 1818, and is intended as a supplementary work to the Dictionary of Medical Sciences. Each number is ornamented with an engraving of an eminent medical Practitioner, for the most part French.

† The principal articles of this journal are extended to such a length, and, at the same time, so interesting, that it will be impossible to convey an adequate knowledge of them here, without transgressing

Anatomical and Physiological Considerations on the Osseous Pieces which envelop the central parts of the Nervous System, and on their Appendages. By Dr. Meckel. (Supplement to article *Crane* of the Dictionary.)—Notice postponed.

Description of the New Privies, known under the name of Moveable Inodorous Privies. (Supplement to the article *Latrine* of the Dictionary).—This is the invention of Cazeneuve and Co., mentioned in a preceding journal. A moveable funnel of strong leather is fixed above to the extremity of the pipe of an ordinary privy by a strap of the same material, and inserted below into a bung-like opening in the top of a large cask, and made air-tight by a collar of lead, into which it is received. In this cask (of variable size, according to the number of persons for whose use it is intended,) standing erect on a strong painted oak frame, are fixed three cylinders, perforated in every direction. Above they are fastened, for the sake of solidity, to the vessel; below they perforate its bottom, and thus carry off the fluid part of the excrement, which is received into another cask, resting horizontally on the base of the oak stand, and furnished above for this purpose with a large funnel, the extremity of which, in order to prevent the extrication of gas, is continued to the lower part of this second vessel. Merat, writer of the article, proposes some alterations in the plan of this apparatus, whereby he conceives it would be rendered perfectly inodorous.—Illustrated by an engraving.

Letter to Dr. N. on Clinical Instruction; by Dr. Vaidy, developes the author's views on this important branch of medical education. His plan, a very admirable one, appears to be a modification of that pursued in the hospitals of Vienna.

Letter to the Editor from Dr. Friedlander; on the general and comparative size of the head in the inhabitants of London and Edinburgh, (taken from an English Journal.) He, moreover, recommends the employment of an instrument called a cranio-spherometer, with which an exact measure of the head in its various directions may be taken; and its different characters, in different persons, be more precisely than hitherto determined.—A great acquisition to the student of craniology.

the limits to which we are restricted. We shall therefore now select only the shorter and more readily compressible papers, with a pledge either to notice the others in our general review, or more fully develop them in the foreign department of a succeeding Number. The critical analysis, of which three or four are commonly contained in each Number, are, of course, excluded from our plan.

Meteorological - Observations from November 22d, to December 21st, 1813.

FEBRUARY.—*On the Formation of the Intestinal Canal in Mammifera, and particularly Man.* (Second and last Article.) By Professor Meckel.—Intended as a supplement to the article *Intestin* of the Dictionary: former part given in a preceding Number.

General Views on Pathological Anatomy. Second and concluding article on this subject. By Dr. Lobstein.—Towards the close he observes, that morbid anatomy is productive of incalculable advantages to medicine. It illustrates the anatomy of the body in health; dissipates the errors of physiology; assists the diagnosis, and rectifies the prognosis of diseases; gives to pathology a basis, of which it was before deficient; influences therapeutics; directs the juridical Physician in his conclusions and reports; and, moreover, exercises, as a science of facts, a great and salutary influence on medical philosophy itself.

On Inflammation of the Veins, or Phlebitis. (First Article.) By Breschet. Sect. 1. *Inflammation of Veins from Phlebotomy.*—After some historical researches on phlebitis thus induced, several cases are detailed: we select the most interesting. A man, aged 22, repeatedly bled in the arm for epilepsy. Last operation succeeded by pain. Next day, tension and redness around the wound; pain aggravated, and extension of swelling from the shoulder below the elbow. Pulse weak and frequent; fever, with loss of strength; severe pain in the right side of the thorax; difficult respiration; death.—Dissection. A little pus oozed from the lancet orifice on pressure; arm neither indurated nor swollen; cephalic vein every where filled with pus: superficial radial also containing pus, to the distance of two inches from its origin; the fluid thick, white, without admixture of blood, which seemed not to have penetrated for some days into the cephalic vein; parietes of this vessel thickened, hard, externally reddish; interior, uniformly greyish*.—2. *Inflammation of Veins induced by Ligature and excision of Varices.* Facts incontestably prove that these operations are sometimes followed by fatal accidents. Puncture and incision of varicose veins have been practised from a very remote period. After adverting to some instances of fatal termination of venous ligature, two cases are circumstantially quoted from Travers.—3. *Inflammation of Veins consequent on Amputation.* Hunter attributed this inflammation, with the resulting pain and tumefaction,

* Of the remaining four cases, two are borrowed from Cooper's and Travers' Surgical Essays, Part I.

to the operation of the ligature. Inflammation of the stump extending to the veins, is admitted by Breschet. He has observed traces of venous phlegmasia in many subjects who have died after amputation of the leg or thigh. Three cases again cited from Mr. Travers, and the remnant of the section made up of the experiments and conclusions of that excellent pathologist.

Report to the Academy of Sciences relative to Boyer's Treatise on Surgical Diseases. By Professor Percy.

General Review of Medical Works published in France during 1818. (Second Article.)—In a former, was comprehended a sketch of the publications which appeared during the first six months of the year. The present includes those of the second semestre.

Case of separation of the Epiphysis of the superior extremity of the Femur in an Adult. Subject aged 58.—Accident occurred in a fall during intoxication. Pains from hip to foot, particularly on external side; but no shortening of the limb, apparent confusion, nor swelling. Rotation outward, and especially abduction, productive of violent pain; audible crepitus; but the nature of the injury not ascertained. Bandages; confinement to the horizontal posture; bleeding; abstinence; the treatment. Next day extensive ecchymoses on buttock and thigh. Pain diminished; and, after ten days, the man began to walk about the ward, but felt at intervals a sort of cracking, little painful, which obliged him to suspend for a while his progress; only, however, when the limb was in a certain state of abduction. Otherwise, little inconvenience was experienced. In descending stairs, or treading on an unequal surface, principal pain felt. At the end of a month he quitted the hospital, and soon afterwards died of low fever.—Dissection. Head of the right femur detached; the eminences and cavities of the two surfaces perfectly corresponding, and encrusted with a whitish substance analogous to inter-articular cartilage, exceedingly thin, and not extending to every point of their circumference. No lesion of the capsule; quantity of synovia unusually small. The left femur, on examination, showed no imperfect union of its epiphysis. Other joints not inspected. Pain and obscure crepitation were here the only two signs of fracture.—Case by Dr. Devilliers.

Loss of recollection of nouns substantive in consequence of Intermittent Fever.—Subject, a military officer, aged 40. The fever at first quotidian, became afterwards quartan; paroxysms long and violent; the patient, in the intervals, pale, melancholy, silent, apathetic, and without appetite. Six drams of cinchona administered before the third attack,

prevented it, and suppressed the fever. Next day utter stupidity. From that time, although speedily restored to health, the patient could never recollect the name of either person or object, so long as the author, Professor Chamberet, had opportunity of observing him. This singular lesion of intellect has been before remarked.

On a new Modification of Acupuncture. By Dr. Demours.—Has been already noticed.

Some Reflections on the Umbilical Vesicle (of the foetus of the sheep). By Professor Emmert.

Meteorological Observations; from December 1818, to January 1819.

MARCH.—*On the more severe Consequences of Parturition*, &c. (second and last Article). By Professor Foderé.

Observations on the Varieties observed in the Distribution of the Brachial Artery. By Prof. Meckel. Supplement to Art. *Brachial* of Dictionary.

On the Calculi found in the interior of Veins. By Dr. Tiedemann. Supplement to Art. *Calcul*.

Parallel between the Arteries and Veins, with respect to the varieties of their Distribution. By Prof. Meckel. (Supplement to Art. *Artere*.)—Of these three papers, a more particular account will be hereafter given, than we can here admit.

Exposition of the Doctrine of Broussais (Third Article). Anonymous.—Many of our readers are, perhaps, not wholly unacquainted with the views and opinions of Broussais. We shall take an opportunity of more fully and clearly developing them, as evidently beginning to exercise a considerable influence on French medicine. Having arrived, in a preceding article, at the conclusion, that, according to the new doctrine, essential fevers do not really exist, and that the fevers denominated primary, are, in fact, owing to different degrees of irritation of the gastro-intestinal mucous membrane; the writer proceeds to examine the principal objections which have been raised against this important part of the new system. In this digression, essential to the complete exposition of the doctrine, the ideas of its author are farther developed.

Report to the Academy of Sciences, relative to a Memoir of Dr. Serres, entitled, "Of the Laws of Osteogeny." By Geoffrey St. Hilaire.—The subject to which the author's attention has here been particularly directed, is the formation of articular cavities. Will be again noticed.

Natural and Medical History of the Stinking Pothos (*Dracontium foetidum*); with a coloured plate: reserved for botanical department of review. (By Dr. Chaumeton).

Case of Malignant Arthritic Fever. Author, M. Brachet.—This is considered as a rare and interesting variety of fever;

it is named arthritic, from the swelling of the foot which signalized the early paroxysms, and exclusively characterized the 4th. Subject, an arthritic, aged 28. Cardialgia, consequent on ingestion of acrid medicine during summer.—Oct. 21st. Severe rigors, with febrile symptoms, and swelling of right foot, removed by copious perspiration.—23d. Similar and more violent attack; face red, tongue natural, lips tremulous, headach severe, slight delirium, pulse hard and wiry.—25th. Well. Next day, pain and swelling of the foot, with rigors, furious delirium, subsultus, and wild appearance. Sinapisms to the legs: at commencement of apyrexia, large doses of cinchona; afterwards, injections of chainomile and camphor.—27th. Paroxysm confined to swelling of foot, and slight headach; recovery rapid; 6th day of convalescence, rigors and pain in right foot, from exposure to cold. Next day, more severe pains, with rigors and bad headach. The paroxysms again suspended by cinchona: on discontinuing it, they returned, but were finally cured by recurrence to the bark.

Meteorological Observations, from January to February.

APRIL.—*On the Structure of the Brain, and its Appendages.* By Professor Louth. Appendix to Art. *Cerveau* of the Dictionary.

Reflections and Observations on doubtful and obscure Fractures. By M. Voisin.—Nothing important, except some remarks on the fallacy of crepitus in the diagnosis of fracture. It not only does not invariably exist, but may lead to error with regard to the bone fractured. Of this a case is given in illustration.

Observations on the efficacy of actual Cautery in some Diseases. By M. Maunoir. Supplement to Art. *Feu* of the Dictionary.—The reasons assigned for the unmerited neglect of this powerful agent by English Surgeons, are, 1st, its misapplication in gout; and, 2d, the anathema uttered by the celebrated Sharp against it. The object of the present writer is to prove, that Sharp has carried his proscription much too far, and only removed one prejudice to substitute another. He does not pretend to indicate all the diseases to which fire is applicable, but to trace an abridged history of some cases wherein it has succeeded after the failure of ordinary remedies*. *Case 1st* was one of inveterate scrofula, in an otherwise healthy male, aged 18: cervical glands suppurated. Mercury, nitrate of silver, cinchona, iron, muriate of lime,

* They who require farther information on this subject, are referred to the classic *Pyrotechnie chirurgicale* of Prof. Percy, and the writings of Pouteau.

salt-baths, and cold injections, had been tried in vain. The red-hot iron was applied to the fistulæ and ulcerated glands, with speedy and permanent success. Some of the sores resuming an unfavourable aspect, required a second application.—*Case 2.* Numerous fistulæ, consequent on abscess of the left thigh, for the most part situated between the skin and muscles, but some penetrating deeply among the latter. Subject, a male aged 28; disease of 18 months' duration. Incisions and stimulant injections had failed; actual cautery completely succeeded, and the limb recovered its lost strength*.

—*Case 3,* detailed to prove that the application of the hot iron is not so painful as commonly imagined. The subject, a boy of 14, submitted without shrinking to its repeated employment, when once compelled to endure it: case, several wounds of the arm, inflicted by a rabid dog. In this instance, as in numerous others where the writer has exclusively employed it for 25 years past, no sign of hydrophobia has occurred.—*Case 4.* Subject aged 50, confirmed congestion of the buccal membrane, extending to the pharynx, displaying a scirrhus character, and embarrassing mastication and deglutition. Medicine and topical applications useless. Hot iron thrice employed, after intervals of a fortnight; some carious teeth previously removed. Suppuration abundant, and cure perfect.—*Case 5.* Malignant ulcer, with hard and elevated borders, and of 15 years' continuance, in the lower lip of a man aged 50. Had been repeatedly, but not permanently, cured: structure of the lip beyond it, unchanged, and constitution good. Cured, after a second application of the caustic, in three weeks, and the lip regained its original form and aspect.—*Case 6.* Rheumatismal lumbar pains, requiring confinement to bed, in a man aged 45. The spine beginning to curve, projected in the lumbar region; and lower limbs became immoveable; internal remedies unavailing. Blisters, issues, moxa, in succession, on each side of the projecting vertebræ; and at last the actual cautery. Lower extremities speedily recovered, but a tumour of the left iliac fossa, with evident fluctuation, suddenly appeared; it continued some weeks, with little pain and no change of colour, and then gradually subsiding, re-appeared near the lesser trochanter, and acquired the volume of a child's head. To prevent the descent of the contained fluid to the knee, a compressive apparatus was applied below. The swelling at the end of two months was quite gone, leaving a hard immoveable lump, not interfering with motion, deep in the thigh below the lesser

* Pouteau observes, that enfeebled parts instantly recover their vigour, on application of the moxa.

trochanter. The vertebral projection was now the only trace of disease remaining. The man regained his strength and spirits, and years after died of typhus.—Dissection. Cranium: effusion of thick greenish-grey lymph elevating the arachnoid; base of the falx ossified; five ounces of serum in the ventricles. Thorax: aorta dilated from origin to arch, and internally very red. Abdomen, sound. In the thigh, near the small trochanter, a meliceris-like tumour digitated, interposed between the muscles, and even some of their fibres, and every where enveloped in a strong cellular and vascular structure. On the internal border of the sartorius this substance extended, as in a canal, of the size of a finger, beneath the crural arch; expanded over the whole iliac fossa; and, dipping between the psoæ, terminated at the diseased vertebræ, and filled the cavities formed by the caries. The four last lumbar vertebræ were diseased in their bodies, cartilages, and articular processes; and described an obtuse angle, of which the third formed the summit. Here, evidently, the progress of the vertebral caries had been quite arrested; the separate and moveable parts resumed, in consequence of abundant secretion of osseous juice, sufficient solidity; and the spinal marrow, no longer compressed by the vertebræ, regained its pristine energy.—Case 7. Fungus hæmatodes of the whole posterior part of the shoulder, in a woman 48. From the centre of the scapula, a livid, pyriform tumour, as large as an egg, adherent by a slender pedicle, quite spongy, and diminishing on compression: outline on the arm and scapula, irregular. Several points ulcerated, and, opening at intervals, gave rise to obstinate and exhausting hæmorrhage. The tumour having been excised, the hot iron was applied to the whole fungous surface. The resulting wound has never completely cicatrized; and revival of the fungus frequently necessitates a recurrence to the cautery. But the pain and hæmorrhage have ceased, and existence become tolerable.

Remarks on the Concretions found in the intestinal Canal of the Human Subject. By Professor Meckel. Supplement to Art. *Calcul* of the Dictionary.

Case of extirpation of a Tumour from the lower Jaw and Neck. By M. Larrey.—Tumour in a robust but scrofulous subject of 40, arising in the mastoidean region, extending along the lower jaw, filling the whole depression of the neck to the larynx, and forming in front of the maxillary bone, a large projection; moveable, indolent, and without change of colour; had existed 10 years, and compressed trachea, larynx and cervical vessels. Larrey undertook its removal. An incision, parallel to the margin of the jaw, was first made

along the whole extent of the tumour; three others traversed this at a right angle: the first following the anterior margin of the sterno-cleido-mastoid muscle; second, the centre of the tumour; and third, the median line of the larynx. The resulting flaps were dissected from the anterior surface of the tumour, several arteries successively tied, and the tumour detached in three-fourths of its circumference. The most thick and prominent portion was thus soon disengaged, and on its pedicle, attached to the great vessels, a ligature was fixed previously to division. A gland, imbedded between the transverse processes of the 2d and 3d vertebræ, was removed with similar precautions; as were also another, of the volume of an almond, enveloped in the cellular sheath of the common carotid artery; a third, lobulated, and adherent to the left side of the larynx between the genio-glossus and hyoid muscles; and a fourth, developed in the parietes of the mouth. Fifteen arteries were tied: among these, the external maxillary, submental, occipital, superior thyroideal, and sublingual. The integuments were brought into contact by suture and sticking-plaster; no untoward symptom ensued; and within a month the wound was completely cicatrized without deformity.

On the efficacy of topical Blood-letting in many cases where Pain constitutes a prominent symptom. By Dr. Vaidy.—There are many affections wherein pain, in some sort, constitutes the disease, as neuralgia, rheumatism, gout; others, in which it exists but as an accidental phenomenon; for instance, phlegmasiæ of the various membranes. In the former, to dissipate the pain, is to cure the disease; its cessation, in the latter, is always salutary and important. Various cases are detailed, wherein this favourable result was brought about by local abstraction of blood.—*Case 1.* Sciatic neuralgia, in a young man; 30 leeches thrice applied with perfect success.—*Case 2.* Same affection, subject aged 38; moxæ and blister unavailing; 30 leeches one day, 35 the next but one, few days after 30; pain gone; returning after some months, it was permanently removed by 40 leeches.—*Case 3.* Sciatica. A man aged 49, abstinence; 30 leeches to the thigh; application once repeated: cured.—*Case 4.* Sciatica and pleurisy. Man aged 30. Application of 40 leeches, with general relief; 7th day 30 more, the crural pain having returned; 16th, final application of 25: cured.—*Case 5.* Pain of the teeth, very violent, with pyrexia; 12 leeches beneath the angle of the jaw: well.—*Case 6.* Severe gout, with fever, in a young man, principally affecting the knee: 30 leeches to the joint with prompt relief; same number re-applied, on recurrence of the pain two months after, with equal success.

Nine other cases of acute rheumatism, lumbago, muscular pain from distention, chronic pleurisy, pleurodynia from contusion, chronic pneumonia, syphilitic and scorbutic pain, where the same decisive treatment was successfully adopted, are afterwards detailed. These fortunate results are ascribed by the writer to the number of leeches used, and their repeated application.

Successful application of Tartarized Antimony in the treatment of Mania. By J. F. Muller. (From Hufeland's Journal.)—Subject a lady, aged 45, previously healthy. The medicine given largely in aqueous solution, mingled with tea. Third dose induced vomiting of blackish-green matter, with marked relief; afterwards acted only on the bowels: cure rapid and permanent.

Historical Notice of Dr. Goercke (Surgeon-General of the Prussian Army.)

Meteorological Observations, from February to March.

MAY.—*Memoir on the Question whether Animals belonging to the Didelphis genus as (the kangaroo) originate from the Teats of the Mother.* By Geoffrey St. Hilaire. (Supplement to the Articles *Generation*, and *Lactation*, of the Dictionary.)

General Considerations on the state called Adynamic or Putrid, drawn from the study of the Nerves. By Dr. Surun. (Supplement to Art. *Adynamie* of the Dictionary.)

Essay on the History of those Mal-formations of the Heart which oppose the formation of Red Blood. (First Article.) By Professor Meckel.—Supplement to the Art. *Bleue Maladie* of the Dictionary. Contains no new facts: principally a transcript of those recorded by English writers, particularly Dr. Farre.

Case of extraordinary Strangulation formed by the Appendix Vermiformis, twisted round a Knuckle of small Intestine. By Dr. Mortier.—A man, aged 62, seized with all the symptoms of ileus: vomiting, at first, mucous; after 3 days, fecal; constipation; abdomen tense and sore; pulse small, frequent; face pinched; constant suffering; a large and old hernia of the right groin, painful, but reducible with facility through the widely-dilated ring. Leeches, emollient fomentations, and poultices, to the abdomen; and injections which procured no evacuation. Vomiting ceased for three days, without subsidence of the other symptoms; then recommenced, and death ensued.—Dissection. Hernia perfectly reduced; internal surface of the sac exceedingly red, destitute of its natural polish, and, as it were, woolly; dilatation of ring and neck of sac extreme. The small intestine throughout more than two inches in diameter; whole serous surface intensely red, and covered with an albuminous layer, yet unorganized. The

eight last inches of the bowel forming a loop closely tied round by the cœcal appendix, which encircled it so as to form a complete knot. The free extremity of the appendix, itself strangulated, inflamed, as large as a nut, and accurately resembling the intestine; its muscular and serous membranes in one point ruptured, and the mucous slightly protruding; the latter bursting on light pressure, and giving issue to a substance exactly like gooseberry-jelly in colour. The extremity instantly collapsed, and knot became disentangled spontaneously. The strangulation was formed immediately by the mesentery of the appendix; which, shorter than the appendix itself, very closely compressed the loop of intestine. Hence this loop was black and collapsed. The cul-de-sac of the cœcum effaced by the dragging of the appendix. The explanation of such an occurrence is very difficult: description illustrated by an engraving.

Singular Case of Hæmorrhage. By Prof. Richerand.—Dangerous hæmorrhage from a leech-wound penetrating the superficial temporal artery in a child of six months; suppressed by actual cautery, after compression, and all the ordinary remedies had failed. Eschar detached on the third day, and sore speedily cicatrized. Original disease, cerebral congestion.

On the Nature of the Pancreatic Juice. By Prof. Mayer.—Notice postponed.

Meteorological Observations, from March to April.

JUNE.—*Considerations on False Articulations.* By Dr. Kuhnholz. Supplement to the *Art. Articulation* of the Dictionary.—Noticed hereafter. Accompanied by an engraving.

Essay on the History of Mal-formations of the Heart, &c. (Second and last Article.) By Prof. Meckel.

Of Inflammation of the Veins or Phlebitis. (Second and last Article.) By M. Breschet.—The former article we have concisely analysed; but the present is long, interesting, and contains too many important anatomical facts to be thus summarily despatched. Seven sections are here devoted to the description of venous inflammation, as arising from different causes; and each section illustrated with morbid histories and dissections. There is then a section, entitled, General Description of Phlebitis, enumerating its causes; physiological characters, local and general; anatomical characters, as exhibited under the various forms of inflammation, adhesive, suppurative, ulcerative, gangrenous, and eliminatory; and, finally, indicating the treatment. To this paper we shall largely revert.

On the doctrine of Plato on Mental Alienation. By Kurt

Sprengel. (Supplement to the Article *Alienation* of the Dictionary.)—Evidently nothing new, or practical.

On the use of Colchicum in Gout. By Sir Everard Home.—From our Journal *.

Letter of Caffin to the Editor, in answer to a criticism on his "Analytic Treatise upon Fevers, by Fournier."—Controversial, and unjustifiably violent.

Meteorological Observations, from April to May.

JOURNAL OF PHARMACY AND THE ACCESSARY SCIENCES†, published every month; has no particular arrangement: forms an annual volume of nearly 600 pages, octavo.

JANUARY 1819.—*Dissertation on the Natural and Chemical History of the Cocculus Indicus* (*Menispermum cocculus*); *Examination of its poisonous Principle* (*Pierotoxine*) *considered as a Vegetable Alkali, and of a new Acid* (the *menispermic*) *peculiar to its Seed.* By M. Boullay. (Extract of a Thesis on this subject).—After the detail of numerous facts and experiments, the author arrives at the following conclusions, which we can only allow ourselves to transcribe:—1st, The poisonous principle of the *cocculus indicus* is not only a new substance, and very powerfully poisonous in its pure and crystallized state, but a real salifiable base, susceptible of assuming the functions of an alkali, with regard to acids, and of constituting well-characterized salts, of various form and solubility.—2dly, Vegetable acids appear to be the best solvents of this substance, and most proper to neutralize its poisonous properties; yet, either from the mode of its action on the gastric membrane, or from the necessity of the assistance of heat in effecting its solution in most of the acids, the attention of the Physician should rather be directed, in the treatment, to demulcent and antiphlogistic, than to chemical remedies.—3dly, The fruit of the *menispermum cocculus* contains a vegetable acid, which differs, in its characteristic properties, from all the known acids.—4thly, This fruit contains two kinds of fixed oil, of distinct properties, and particularly different in consistence.—5thly, The seed appears

* Number for Nov. 1818.

† Journal de Pharmacie et des Sciences accessoires. Edited by MM. Bouillon-La-Grange Cadet, Planche, Boullay, Boudet, Virey, Pelletier, and Vogel. The present is the fifth year of its publication, and consequently the commencement of the fifth volume. The name of Vauquelin, formerly one of the editors, is now, for the first time, omitted. Many of the articles contained in it, possess but little interest for the medical practitioner. Of such we shall, for the most part, merely transcribe the titles; those of a different character, will again come under review.

to contain a quantity of saccharine matter. Its physiological and physical effects on the animal economy have been noticed by Orfila; but it seems to exercise an irritant local influence which has eluded his observation.

Medical Essay on Oysters. By Dr. Pasquier.—Has been before, and will be again more fully noticed.

General Review of the Substances naturally phosphorescent, and of their principal causes in minerals, vegetables, and animals. By M. Virey.—Contains four sections: I. On the phosphorescence of minerals by various processes; II. Phosphorescence of some vegetable substances; III. Phosphorescence among terrestrial animals; IV. Of marine animals, and the phenomenon of the luminous ocean.

On Lemonade made with or without the assistance of heat. By M. Cadet.—It is well known that the liquor prepared by these processes differs in taste and property, without the slightest deviation in the proportions of the ingredients employed. From experiments instituted on this subject, that the lemonade prepared by simple expression contains more acid than that made with heat; since the difference of the salt of lead* obtained from the first, was to that of the second: 246:215, that is $\frac{31}{246}$. The latter filters more difficultly than the first, and is of a deeper colour. In this, the sugar undergoes, from the action of the acid, a modification of its principles. This change, announced by the colour of the liquid, is, perhaps, analogous to that which caloric, in some degree, operates upon it; that is, it becomes mucilaginous and incrustable. Thus are explained the difficulty of its filtration, and its more emollient and laxative property.

Some Experiments on the Root of Cinchona. By M. Laubert.—Febrifuge properties, superior to those of the bark, have been ascribed to the root of cinchona. It results, from the experiments of this writer, here minutely detailed, that the specimen he examined, weighing thirty drams, contained no green matter; furnished nearly four drams of amylaceous matter, slightly coloured; a small quantity of gallic acid; and of resiniform substance; and one dram of colouring matter. If the root in question really belonged to a plant of the genus cinchona, and it possess the properties attributed to it, the determination of the nature of the active principle of cinchona will be involved in increased difficulty. Comparative analysis of the root and bark, and cautious

* The acid of the lemonade was first saturated by carbonate of potash, and a double decomposition afterwards effected, by the addition of a saturated solution of acetate of lead in distilled water. Thus an insoluble citrate of lead was procured.

therapeutic experiments, can alone elucidate this interesting question.

FEBRUARY.—*Analysis of Carapa Oil.* B. M. Cadet.—The product of a tree of Cayenne, called, by the natives, Carapa, and by botanists, Persooma. Excessively bitter, and hence only employed for burning, or the preservation of furniture from insects. Obtained from the fruit, consists of a bitter principle, not entirely separable; a large proportion of stearine; oleic acid, and margarine: combines with protoxide of lead in proportion of four parts to one.

Analysis of a Lichen of Teneriffe. By M. Cadet.—The same species as the lichen fraxineus of Linneus. Applicable as a nankeen dye only.

Note on the Preparation of Subcarbonate of Potash, formerly called Niter fixed by Tartar. By M. Guibourt.

On the Composition of Muriates. By M. Vogel.

Medical Police.—The Medical Society of the department of the Eure proposed, in 1817, the following prize question: "To signalize all the abuses committed in France, in the practice of medicine, surgery, and pharmacy: to determine the degree of influence which they exercise on human health and life: to indicate the most effectual means of repressing and annihilating empiricism." The prize adjudged to a memoir of M. Mouquet. An analysis of it follows.

On the Sophistication of Orris Peas. By M. Caventon.—The genuine orris peas may be distinguished by the fine red colour which they communicate to a weak solution of sulphate of zinc, when immersed in it. They are also less "translucid" than the fictitious.

On the Ethiopian Pepper, (Fruit of Uvaria Aromatica, of Lamarck.) By M. Virey.—Nothing very important.

Pastiles of Epimenides, (a Cretan Philosopher, who lived 500 years before Christ.)—A curious but useless piece of medical antiquity.

Researches on a Valuable Medicine of the Ancients, known under the name of λυκιον, lycion, to what substances it should be referred. B. M. Virey.—An astringent extract, supposed to be the product of the acacia vera and acacia catechu.

MARCH.—*Examination of the Root of Gentian.* By M. Henry.—It appears, from the researches of this writer, detailed at considerable length, that gentian is composed, — of a matter which may be regarded as peculiar, but closely resembling bird lime, and purely vegetable, — of a substance of resinous nature, combined with a little oil, which gives its odour to the root, extracted by alcohol, but itself inodorous, — of an extractive substance, resembling the extract of cinchona, constituting the larger and probably more active portion of

the root, being, by its properties, &c. what emetine is to ipecacuanha, and regarded by Thomson as the bitter principle,—of gum, united to a colouring matter,—of a salt with lime for its base, presenting the characters of a phosphate:—lastly, it contains neither starch, nor inuline, nor any substance analagous to the alkalis,

Chemical Analysis of the Root of Gentian. By MM. Guillemin and Fæcquemmin.—This examination exhibits some differences from the preceding, probably dependent on the mode of operating. According to this, gentian contains gum, sugar, resin, and a peculiar resino-oleaginous substance, on the nature of which the writers cannot positively decide. The bitter principle is too soluble in the different menstrua to admit of isolation. The carbönic, muriatic, and sulphuric acids, combined with lime, alumina, and probably magnesia, appear to exist in the ashes of the root; as also iron in the state of insoluble oxide, since scarcely any traces of it are found in the decoction: silex, lastly, may be accounted among its mediate principles. The distilled water of gentian is slightly bitter, and has a strong smell, arising from a volatile oil, which communicates to it, according to Planche, highly deleterious properties.

Analysis of the Fruit of the Anona-triloba. By M. Lassaigne.

On Sirium, a new metal.

Formula of an Incisive Potion for Chincough.—The principal ingredients, subcarbonate of potash, syrup of Tolu, and ipecacuanha.

On Hydroguretted Carbonic Oxide.

On Sandaron, or Sandarous, a transparent resin from the East, employed as a masticatory, and for odorous fumigations.

Extract of a Letter from M. Peschier to M. Boullay, on the presence of Sugar and Gum in the Potatoe, and on the Analysis of the Spawn of Frogs.—From one pound of the farina of potatoe, macerated during twenty-four hours in eight or ten pints of water, and afterwards evaporated nearly to dryness, was obtained a saccharine and gummy matter, which, treated by alcohol, yielded sixty-five grains of saccharine principle, and two hundred and twenty of dry and transparent gummy principle.

Necrological Notice of Dr. Montegre.

APRIL.—*Memoir on a new Vegetable Alkali, (Strychnine.)* &c. By MM. Pelletier and Caventon.—Already cursorily adverted to*; and to be again noticed.

Analysis of the Urine of the Pig.—By M. Lassaigne.

* See REPOSITORY, Vol. XI. page 165.

Chemical Examination of the Humours secreted in Venereal Diseases. By M. Chevallier. — Experiment 1st. The fluid extracted from a phlegmonous abscess in the right labium of a woman affected with syphilis, (period of development eight days,) was composed of water, volatile alkali uncombined, albumen, muriates of potash and soda, traces of the sulphates, osmazome. — Experiment 2d. Viscid and offensive matter, taken from a syphilitic inguinal abscess, on the fortieth day after its formation: water, uncombined volatile alkali, albumen, a fatty matter, muriates of soda, potash and ammonia, traces of sulphate, osmazome, gellatine. — Experiment 3d. Humour from syphilitic bubo of a syphilitic female, (period of formation ten days): water, albumen, a fatty matter, muriates of soda and potash, and traces of muriate of ammonia, traces of sulphates, and gelatine. — Experiment 4th. The serum from a burn, evaporated to dryness, left a residuum resembling dried white of egg. Forty parts of the fluid consisted of 8 albumen; 1 muriate of soda; 31 water. These experiments have been repeated on similar fluids with the same results.

Extract of Opium prepared, without heat, by means of resin. — Will be hereafter particularized.

On a new Acid, discovered by MM. Gay-Lussac and Welter. — This acid results from the action of sulphurous acid on peroxide of manganese. It is formed of oxygen and sulphur, and is intermediate between the sulphurous and sulphuric acid, and named the hypo-sulphuric. Its salts will be hypo-sulphates. Their peculiar character consists in being all soluble, and not precipitating the salts of barytes, hypo-sulphate of barytes being itself soluble. To obtain this acid, peroxide of manganese must be treated by sulphurous acid. Hypo-sulphate and sulphate of manganese are thus formed. These salts are decomposed by barytes. The sulphate of barytes is precipitated, and the hypo-sulphate remains in solution. The barytes is then separated by the quantity of sulphuric acid just necessary. The hypo-sulphuric acid should be concentrated with a pneumatic apparatus, by a process resembling that which is employed in the formation of artificial ice. Exposed to heat, the hypo-sulphuric acid is decomposed into the sulphuric and sulphurous acids*.

On the Origin of the Gum called Gum of Bassora. Communication addressed to M. Virey by M. Damart. — This gum, resembling tragacanth, and frequently confounded with it, has been supposed to come exclusively from Bassora, and

* A Memoir on the Hypo-sulphuric Acid is about to be printed.

hence designated. The writer, however, has collected it on the leaves of the cactus opuntia, an American plant, which he proposes to call cactiera, and the substance in question cactine. To this change, Virey, in a comment on this fact, previously suggested by M. Desvaux, objects. Many plants, he observes, may exude a gummy matter of the nature of bassorine; and all the different species of cactus belong exclusively to the American continent, and the neighbouring isles.

On an American Senna.—Before described.

Extract of the Paris Bills of Mortality for 1818.

MAY.—*Analytical Experiments on the Root and Extract of Rhatany.*—From the facts and observations recorded in this memoir, it results, 1st, that the most efficacious part of rhatany is that which dissolves in considerable quantity in water and in alcohol, and imparts to these menstrua a brown colour; 2dly, that in prescribing a decoction, or the extract of rhatany, the mineral acids should never be added; 3dly, that the feebly astringent principle possesses, in great part, the properties of tannin, and seems to be a modification of this immediate matter of vegetables; 4thly, that the extract of rhatany may be distinguished from kino by the characters indicated in the memoir;* 5thly, that the dried root contains a red astringent principle (modification of tannin), gallic acid, gum, fecula, and a ligneous matter; 6thly, that the ashes of rhatany contain pure lime, carbonate of lime and magnesia, sulphate of lime and silex: lastly, that in 100 parts of the powder are found, modified tannin, 40; gum, 1, 50; fecula, 0, 50; woody matter, 48; gallic acid, a trace; water and loss, 10:—total, 100.

Medico-Pharmaceutical Intelligence.—Announcement of an American Pharmacopœia.

Singular Effect of Cinchona.—A subject, labouring under malignant fever, was unexpectedly cured by confinement to a room wherein a considerable quantity of recent bark of cinchona was stored. Several other febrile subjects were afterwards constantly immersed in an atmosphere impregnated with its effluvia, with similar results. Some common French brandy and coffee, thus circumstanced, acquired peculiar properties. The strength of the former was increased by a slightly aromatic flavour, and rendered more tonic and grateful. The smell and taste of the latter were

* The extract of rhatany is very fusible by heat; kino is not. There are several other means of discrimination, which our limits will not allow us to particularize.

no longer the same; it left in the mouth a sense of bitterness, resembling that of an infusion of cinchona.

Observations on some Electric Phenomena of different substances placed upon Water.

Extract of a Letter from M. Van-Mons, to M. Cadet.—Nothing interesting.

JUNE. — *Notice on Palm Oil.* By M. Henry. — The analogy which this oil displays with the other fatty bodies, but principally with fat itself; the compounds which it forms with the alkalis, acids, and metallic oxides, &c. leave no doubt as to its nature. It may be regarded as composed; 1st, of stearine, 31 parts; 2dly, of elaine, 61; 3dly, of a colouring principle, wholly in the latter, and destructible by chlorine and the action of air; 4thly, of an odorous principle slightly volatile; 5thly, this oil is but little soluble in alcohol; readily by the sulphuric and acetic ethers.

Chemical Examination of the Flowers of the Arnica Montana. By MM. Chevallier and Lassaigne. — The arnica, it appears from the experiments here detailed, contains; 1st, a resin possessing the odour of the arnica; 2dly, of a bitter, nauseous matter, resembling eytisine; 3dly, of gallic acid; 4thly, a yellow colouring matter; 5thly, albumen; 6thly, gum; 7thly, the muriates and phosphates of potash; 8thly, traces of the sulphates; 9thly, carbonate of lime (a little decomposed acetate); 10thly, an atom of silex.

Examination of Honey, which, from exposure to Air, had changed its Nature, and become reduced to a solid saccharine substance. By M. Chevallier.

Anti-cancerous topical application, of Dr. Bouillon-Lagrange. — A plaster, composed of simple plaster, yellow wax, white soap, turpentine, melted together, and powdered conium, sulphuret of potash, and camphor, subsequently mixed in, is said to exert a singular influence on the exhalants of the skin, to collect beneath it a very remarkable quantity of reddish viscid serum excreted by these vessels, and thus speedily effect the dispersion of the hardest and most voluminous glandular congestions. The same author has just republished his memoir on the employment of carrot-juice in cancerous ulcerations. Of the effects of this remedy, aided by appropriate constitutional treatment, he speaks very favourably. On chemical analysis, it is found to consist of liquid sugar, acid malate of lime, a white fecula, a yellow substance insoluble in water, but soluble in alcohol and the oils, and of a fatty nature. It should be used previously to the plaster.

Carbonic acid: possesses an expansive force analogous to that of aqueous vapour; and any given degree may be ob-

tained with five times less caloric than is required for the production of the same effect by the latter.

Notice on the extraction of Boracic Acid from Tincal. By M. Robiquet.

Notice on the Boracic Acid of Tuscany, and its employment in the fabrication of Borax. By the same.

On Oxidulated Iron.* By the same.—*Also on the Moiré Metallique.*

Description of a Mortar-Lid, by the assistance of which impalpable Powders may be obtained. By M. Guilliermond.—The advantages resulting from this contrivance, hereafter to be explained, are the obtaining of impalpable powders without the employment of a sieve; the protection of the operator from the dust, the effects of which are sometimes pernicious; and prevention of the loss usually sustained.—Very useful to Apothecaries.

Report made to the Society of Pharmacy of Paris, April 15, 1819.—Regulation of the Society, &c.

ANNALS OF CHEMISTRY AND NATURAL PHILOSOPHY †.

This Journal, like the others, appears monthly. It has no particular arrangement. Four Numbers compose a Volume of 448 pages, octavo ‡.

JANUARY, 1819.—*Third Memoir on Asphyxia.* By Dr. Edwards.—Of these memoirs a notice has appeared in several English journals.

Letter of M. Dumont, Ex-Professor of the Physical Sciences, to M. Chaptal, on the Experiments made with a view of ascertaining the Action of Carbonic Acid Gas upon Fruits.—Several varieties of cherries were immersed in the carbonic acid, obtained from the decomposition of carbonate of lime by sulphuric acid; the white glass vessels containing them, carelessly corked, and deposited in a cellar. After remaining unchanged for a fortnight, a fluid was deposited at the bottom of the vessel, and the taste and colour of the fruit altered. In six weeks, a strong alcoholic odour was perceived on respiring over one of the unstopped vessels. Some

* See Journal of Science, &c. vol. viii. page 167.

† Annales de Chimie et de Physique. Editors, MM. Gay-Lussac and Arago. It was commenced in 1816, and forms a continuation of the old Annales de Chimie. The present is the beginning of the 10th volume.

‡ Our notice will be principally, if not exclusively, restricted to the articles connected with physiology and medical chemistry. Those on the various branches of physical science, which occupy the greater portion of the work, we shall obviously exclude.

of the cherries strongly resembled, both in consistence and taste, cherries infused in brandy. From 11 pounds of white-heart cherries in this state, were obtained, by distillation, six ounces of good alcohol, at 25°. Grapes, placed in a white glass vessel, and tied over with wet bladder, began, in about 20 days, to exhibit the same changes. The bladder on the first day sank in, like a funnel, but afterwards rose, and became very tense. One of the vessels exploded with violence. From a pin-orifice made in the other bladders, gas escaped with a hissing sound. Pears and chesnuts afforded nearly the same results.

Continuation of Experiments on Oxygenated Water. By M. Thenard.—Water, containing more than 400 times its volume of oxygen, possesses many remarkable properties. The following are the principal: when in contact with the skin, it immediately attacks and bleaches the epidermis, and causes violent pricking: it has a taste both bitter and astringent, somewhat resembling that of emetic tartar: a few drops put into a tube, and oxide of silver added, the tube becomes excessively hot, and violent effervescence ensues. Lastly, on suddenly dropping oxide of silver, recently precipitated and yet moist, upon it in a glass, a sort of explosion occurs.

FEBRUARY.—*Memoir on Strychnine, &c.* By MM. Pelletier and Caventou; with a note by Magendie.—Hereafter noticed.*

Analysis of Ox's Liver. By H. Braconnot.

Analysis of the Hippomanes found in the Fluid contained in the Allantoid of the Cow. By M. Lassaigue.—Notice of these two papers reserved for General Review.

On the Preparation of Subcarbonate of Potash with Nitre and Tartar. By M. Guibourt.—Transcribed in the Journal of Science and the Arts.†

Letter of Gaultier-de-Claubry to Gay-Lussac, on the Preparation of Gallic Acid.—The process, indicated by Barruet, consists in precipitating a solution of nut-gall by an excess of white of egg; evaporating the liquid to dryness; and treating the mass with alcohol to separate the excess of albumen. By substituting a solution of gelatine of bones for albumen,

* There are several articles in the present Number, extracted from English publications, as, an abstract of the bills of mortality of London for 1818; Home's paper on the blood; Davy's, on some combinations of phosphorus; Daniel's, on formation and decomposition of sugar; and Wilford's, on the temperature of the boa constrictor.

† For July 1819.

the writer has obtained gallic acid perfectly pure and crystallized. A considerable quantity of sulphuric acid having been added, by mistake, to a mixture of gallic acid, gelatine, and alcohol, the liquor was boiled upon carbonate of lime, and the gallic acid recovered in a state of perfect purity.

Comparison of the Climates of different Points of the Eastern Coast of the United States of America. (From the Memoirs of the American Academy.) The mode of instituting this comparison is very simple, and requires not the aid of any instrument. It consists in the accurate observation of the period at which fruit-trees are in blossom, in various and distant situations, and may be productive of considerable advantages to meteorology.

MARCH.—*Note on the composition of the Phosphoric and Phosphorous acids.* By Berzelius.—Statement of reasons for not adopting Davy's opinions on the composition of the acids of phosphorus. The objections of the Swede, confirmed by the experiments of Dulong*.

On a new Acid, formed by sulphur and oxygen, &c.—Before noticed.

Prizes proposed by the Academy of Sciences.—Two of these, chemical and anatomical, we have before mentioned. In addition, a gold medal, value 440 francs, is proposed to the author of the best work on experimental physiology. Term of presentation, Dec. 1, 1819.

New Results on the Combination of Oxygen with Water. By M. Thenard.—This chemist has succeeded in making water combine with 616 times its volume of oxygen. Its properties in this state of saturation are very remarkable: it flows through common water like syrup; acts with energy on the skin and tongue; thickens the saliva; explodes violently, with extrication of heat and light, when poured on dry oxide of silver. Several other metallic oxides and metals in a state of division operate powerfully on it. In general the oxygen, united with the water, and sometimes that of the oxide also, is disengaged; but in other cases part of the oxygen combines with the metal itself, and frequently light is extricated in this combination.

APRIL.—*Memoir on the Refracting Media of the Ox's Eye.* By M. Chossat, (with an engraving,) very long, and inausceptible of analysis†.

* The English Articles, contained in this Number, are Braid's Account of an Electrical Phenomenon, and Bruce's Letter to Mr. Erskine on Vaccination.

† English Articles: Prout on the Nature of some of the immediate Principles of Urine; Thomson on Oxy-Muriate of Lime; and Clarke on Remarkable Mineral Springs of China.

Extract of the Sitzings of the Royal Academy of Sciences.—That of the 26th of April contains the report of a memoir, by Dr. Faure, entitled “Observations on the Iris, on Artificial Pupils, and on a new Method of operating for Cataract,” to which we shall revert.

MAY. — *On the Oxydation of Iron by the combined Action of Air and Water.* — Dr. Marshall Hall and M. Guibourt have each recently published a memoir on this subject. The results at which they have arrived do not coincide. But the writer of this article thinks that, by comparing these results with each other, and with those already known, the obscurity arising from their difference may be readily dissipated. The experiments and conclusions of Dr. Hall must be well known*. The general results of Guibourt’s are†, that iron decomposes water by its own action, and cold; and that this decomposition increases with the temperature: certainly incorrect. It is the writer’s object to “demonstrate that iron does not decompose water at the ordinary temperature, when both are perfectly pure; but that oxydation once commenced, from whatever cause, may be continued by the action of the water alone‡.”

New Details on Cadmium, by Stromeyer.—Noticed in the English journals.

New Observations on Oxygenated Water. By M. Thenard. — Several animal substances, particularly fibrine, the structure of the lungs, thinly sliced and washed, that of the spleen and kidneys, possess, like platina, gold, and silver, the property of disengaging oxygen from oxygenated water, without undergoing any change, at least when the latter is diluted with distilled water. Skin and vein enjoy this property in an inferior degree: urea, albumen, and gelatine, not at all, even when the water is highly oxygenated. These results are very curious, and merit the attention of the physiologist.

Experiments on the New Acid produced by Distillation of Sorbic Acid. By M. Lassaigne.

Preservation of Water at Sea. — M. Perinet, after having examined the various processes proposed for this purpose, prefers that which consists in the addition of one half part of pulverized oxide of manganese to 250 of the water. The mixture should be shaken once a fortnight. After a seven year’s experiment on water thus treated, the fluid had suffered no change.

* Journal of Science and the Arts. Vol. VII. page 55.

† Journal de Pharmacie. Tome IV. page 241.

‡ English Papers. Prout on the Acid Principle, extracted from Uric Acid.

JUNE.—*Letter to Gay-Lussac on a new Vegetable Alkali, discovered by MM. Lassaigne and Feneulle**. (Delphine†).

Analysis of the Water of the Dead Sea.—Essay on the Water of the Jordan. By M. Gay-Lussac.—100 parts of the water of the Dead Sea left, on evaporation, a saline residue, which, after drying and calculating the marine acid extricated by the heat, weighed 26,24. This residue consisted of muriate of soda, 6,95; muriate of lime, 3,98; muriate of magnesia, 15,31. It contained also a small quantity of muriate of potash, and traces of a sulphate, with lime, probably, for its base.—The water of the Jordan is perfectly transparent, and destitute of sensible taste. It holds in solution principally the muriates of soda and magnesia, a small quantity of sulphate of lime, and probably also a very minute one of its muriate. The sulphate of lime seems to be much more abundant in this than in the water of the Dead Sea; but the great quantity of muriates contained in the latter probably prevents the sulphate of lime from remaining in solution.

On the Preparation of Oxygenated Water. By M. Thénard.—This process requires several precautions, without attention to which it will not perfectly succeed. They are here detailed at a length which precludes the possibility of our transcribing them.

GERMAN JOURNALS.—Several Journals of Medicine and the collateral sciences are published in Germany. The only one, which we at present regularly receive, is the

JOURNAL OF PRACTICAL MEDICINE‡.

It appears monthly, and consists of two departments, respectively occupied by original cases and memoirs, and short notices and extracts. A volume includes six numbers, each containing from 120 to 140 pages, and frequently an engraving. One number of a work entitled MAGAZINE OF PRACTICAL MEDICINE§, is regularly published with it. This is exclusively devoted to Analytical Review of Medical Publications, in general long and elaborate. Six numbers form a volume of upwards of 300 pages octavo. From the unex-

* See REPOSITORY, Vol. XII. page 254.

† Contains no English Papers.

‡ Journal der Practischen Heilkunde: edited by C. W. Hufeland, (the name of his former coadjutor Harles now first omitted). The present is the commencement of the 48th volume of the old, and 41st of the new series. Published at Berlin.

§ Bibliothek der Practischen Heilkunde, edited also by Hufeland. Berlin.

pected length to which our Analysis has already been extended, we must submit, however reluctantly, to the necessity of postponing, for a while, our proposed notice of Hufeland's excellent Journal.

ITALIAN JOURNALS.—With one of these only have we yet had the good fortune to be acquainted. It is entitled **JOURNAL OF PRACTICAL MEDICINE***, and terminated in December, 1817, an honourable career of six years. At the close of it, a new periodical work was announced under the title of

NEW COMMENTARIES OF MEDICINE AND SURGERY†.

One Number of this was to appear on the 1st and 15th day of every month, beginning with January, 1818. From some inexplicable circumstance, we have not yet succeeded in obtaining it. We are certain, however, that it has been published; and hope to receive it sufficiently early for analysis, with Hufeland's Journal, in the first Number of our 14th Volume.

PART V.

MEDICAL AND PHYSICAL INTELLIGENCE.

The following description of an Hermaphrodite was sent to Dr. SKEETZ by his brother-in-law, Mr. RING, Surgeon at Reading in Berkshire.

Elizabeth Trueman, aged 21, born in the parish of Waltham, St. Lawrence, Berkshire, christened by that name soon after, was dressed, educated, and brought up as females of the poorer class generally are, her friends unable to maintain her but by some employ. She assisted her mother in all domestic branches, as cooking, sewing, &c. &c.; sometimes was employed by her father in looking after sheep.

Her father, a severe and morose man, frequently, as well as her brothers, ridiculed her situation. This, and repeated ill treatment, made life burthensome, and determined her to quit home. She accordingly absented herself from her friends the 10th of October, 1782, and judging a better living might be obtained by following some male occupation, she purchased proper apparel, and habited herself like a man. After wandering some time about,

* *Giornale di Medicina Practica*: editor, V. L. Brera. Consisted of four Secitons:—Memoirs and Observations; Analytical Review; Spirit of the Journals—being an Analysis of the Italian, French, English, and German Journals; and Varieties.—Published every two months. Three numbers formed a volume of about 500 pages. An excellent Journal.

† *Nuovi Commentari di Medicine et di Chirurgia*: editors, V. L. Brera; C. Ruggieri; and F. Caldani. To be published at Padua.

she was discovered sleeping in a gentleman's out-house, and confined by him as a vagrant. At the last quarterly sessions for this county she was ordered by the Justices to enlist in His Majesty's service, but being of the doubtful gender, she was judged, by an examining Surgeon, unfit for duty.

Some days after, however, she made application to a recruiting party in the town, and solicited acceptance as a soldier. She was enlisted, and, as is usual in that service, brought before me (Mr. Ring) for examination, when I had a full opportunity of inspecting her formation, and discovering some singular appearances. This induced me to mention the case to several medical friends, who attended a second examination, and who are evidences of the facts I am about to state.

The pelvis large and wide; mons veneris prominent. In the left groin a scrotum hangs, of about half the common size: this seems accounted for, only one testes being contained, therefore two cavities were unnecessary. It is, in all probability, a testes, having quite the feel and figure; the body and epididymis distinct. The spermatic chord is easily traced to the abdominal ring: an hernial sac is also formed in the scrotum, into which omentum descends: this is reducible without difficulty. The scrotum is rugous and hairy, without any apparent septum; nor is any line like the raphe discoverable. On this side there is no labium pudendi, the scrotum answering that purpose. On the right side, rather centrally situated, is the clitoris, very much elongated; its glans and præputium of considerable size, and quite impervious, though there is a division or fossa in the glans not unlike the beginning of the urethra, forming, on the whole, an appearance very similar to a moderate penis.

The præputium did not cover the glans, but hung loosely over the dorsum clitoridis, confined down, or incurvated, as it were, by a frænulum; in length, as accurately as could be ascertained, about two inches and a half; in circumference rather more; considerably longer when erected: this, though, seldom happens.

The labium pudendi on this side quite natural; nymphæ very small towards the vagina; this probably from the considerable præputium formed. The os externum nearly large enough to admit a finger. A catheter was passed into the meatus urinarius and bladder, by which some urine was drawn off. A common large dressing probe was introduced up the vagina about four inches.

The os internum could not be distinctly ascertained. Upon attempting to introduce a finger into the os externum, pain was excited, and some considerable resistance, like a firm band, prevented its admission: this, perhaps, from the hymen, though the appearance of the parts did not favour that supposition.

The posterior and inferior commissure of considerable size, reaching nearly to the middle of the orifice, forming the fossula scaphoides of some depth. The perinæum of one inch in length. These are the principal varieties in the organs of generation.

She was broad-chested, the mammæ more masculine than feminine; the right more full than the left; papillæ and areolæ small. There has never been any show or discharge at all resembling the catamenia. A beard began to show itself about five years since, but while assuming the female character, the hairs were continually plucked out. It is now suffered to grow, and has become considerable, the razor having been frequently applied. Though bearded, yet smock-faced; voice strong, full, and harmonious.

In strength equal to most men, and as capable of laborious employ. She seems now determined to follow the occupation of a man.

Never the least inclined to venereal pleasures, or addicted to lasciviousness, positively declaring that she never copulated, or thought of such gratification.

TO THE EDITORS OF THE REPOSITORY.

GENTLEMEN,—At page 316 of the twelfth Volume of the REPOSITORY, you say the high operation for the stone “had not been performed in London for a period of nearly a hundred years.” Perhaps you will think it proper to contradict this, on reading the following assertion. I saw the high operation for the stone performed at the London Hospital about the year 1772 or 1773, by a Mr. Thompson, who, I suppose, was Surgeon to that hospital: his residence was in a court near the end of Leadenhall Street, and I think he did not live a long time after that, though, according to my recollection, then a middle aged gentleman. The patient died a few days after the operation, if I recollect right. I also think Mr. Heaviseid was at that time House Surgeon at Bartholomew’s. Either of the above references will ascertain the fact, as it made some stir amongst the Surgeons at that time. Many gentlemen must yet be in being who saw the operation as well as myself.

I am, Gentlemen,
With great respect,

Bolton Hall, near Doncaster,
Yorkshire,
15th Nov. 1819.

Your very humble servant,
JOHN DYMOND, M.D.
Memb. R. C. S. L.

MEDICAL REPORT.

A List of the Cases admitted under the care of the Physicians, at the Universal Dispensary for Children, St. Andrew’s Hill, Doctors’ Commons, between Sept. 1st and Dec. 1st, 1819.

Diseases.	No. of Cases.
Synocha	28
Synochus	68
Pneumonia	72
Pertussis	124
Tussis	10
Rubeola	26
Scarlatina	8
Erysipelas	5
Varicella	6
Urticaria	2
Erythema	4
Strophulus	10
Bullæ	2
Phrenitis	12
Hydrocephalus Acutus	8
Chronicus	3
Gastritis	8
Cholera Morbus	8
Enteritis	10
Diarrhœa	65
Dysenteria	13
Hepatitis	2
Convulsio	26
Lienteria	2
Coryza Maligna	2

Diseases.	No. of Cases.
Pyrexia	4
Febris Catarrhalis	12
Rheumatismus	4
Cynanche Tonsillaris	10
Parotidæa	4
Hæmaturia	1
Scrophula	15
Nephralgia Arenosa	1
Porrigo	20
Atrophia	16
Dyspepsia	10
Lumbrici	15
Ascarides	11
Iceniæ	1
Ascites	2
Anasarca	4
Ichthyosis	1
Dysuria	1
Otitis	1
Tormina	15
Papulæ	8
Aphthæ	3
	<hr/>
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At the approach of winter it is that the whooping cough is usually frequent and severe. This assertion was never more completely verified than in the present season. Every third or fourth patient admitted into the Universal Dispensary for Children, had whooping cough: and a very large proportion of those patients who had pertussis, had it in conjunction with pneumonia and convulsions, the former of which ended often in effusion in the bronchia

and cavity of the thorax, the latter often in effusion into the ventricles of the brain. Pertussis has this season proved unusually fatal. The worst cases were not brought into the Institution until after three weeks' duration of the disease. The children had already short, interrupted, and laborious respiration, ardent pyrexia, turgid countenance, flushed cheeks, and livid lips. With these symptoms, the paroxysms of cough were long, severe, and without expectoration, and terminated in excessive anxiety, violent palpitations of the heart and convulsions. Nor did infants under twelve months old alone experience all these symptoms in the severest degree. Children of four and five years of age were attacked in a similar manner, and in many instances died.

It is a curious fact, that measles, prevail at the same seasons as whooping cough. In more cases than one, an eruption precisely similar to measles, accompanied with all the other symptoms usually attendant upon this disease, has appeared in children whilst they were under the full and complete influence of whooping cough, of about three weeks' standing. In the course of three or four days it has disappeared, leaving the patients in the same state with respect to whooping cough. The measles of this autumn have in general been severe; and the fever which accompanied this disease, invariably of the character of synocha. The more urgent symptoms were usually carried off in two or three days, by local bleedings on the chest, pushed to such an extent as to produce a decided effect upon the system at large, by active purgatives and saline diaphoretics. Whenever the inflammatory action directed itself to the intestines, local bleedings on the abdomen and small doses of the submuriate of mercury, administered night and morning, proved very efficacious. If colliquative diarrhœa succeeded with hectic fever, absorbents and astringents, with opiates and blisters, to the abdomen were most successful*. Not any case of typhus was brought to the Institution. Synochus, on the contrary, prevailed in the most extensive manner, in all its modifications, with functional derangement of the stomach, liver, intestines, and brain. Synocha was more particularly confined to children under progress of dentition, or to those who were attacked with measles, cynanche tonsillaris, and cynanche scarlatina. It is rare to meet with a well-marked case of intermittent.

Scarlatina has occasionally appeared at different periods, during the three last months. At this moment it is prevailing with considerable severity. Roseola is frequently epidemical at the latter end of autumn, and although a milder disease than scarlatina, is often mistaken for it. Only a few cases of cynanche parotidœa have been admitted, all of which were mild. Erysipelas infantilis, still, at times, occurs. Several decided specimens have been brought to the Institution since our last Report. This disease appears to be more common among children suckled by nurses. In two recent instances, children that were taken from the mother's breast at the end of four

* Unless purgatives, local bleedings, and diaphoretics be freely employed in the treatment of measles, it generally happens that the inflammatory action, which falls, at first, upon the chest, is afterwards directed to the bowels, and produces painful diarrhœa.

Sometimes eight or ten days will intervene between the first attack of measles and diarrhœa. Is this to be considered colliquative diarrhœa? Certainly not. It is, on the contrary, a relic of inflammatory action; and to be removed by bleedings, mercurials, and diaphoretics. The diagnosis between the two kinds of diarrhœa is important. That diarrhœa can, in our judgment, alone be regarded colliquative, in which the pyrexia is slight and periodical, the abdomen free from tension, the pain, on going to stool, moderate, the motions rapid and thin, the system in a state of great exhaustion, suffering under irritation. An accurate attention to this is indispensable. By it the proper line of practice must be determined.

months, to all appearance in good health, were attacked with erysipelas a month or six weeks after they had been put to the breast of a nurse.

Of every infanticide, however, pneumonia is the greatest: a large proportion of the whole of the admissions into this Institution has consisted of this disease either alone, or in conjunction with other diseases. Although copious bleedings and mercurials have ever proved highly efficacious in subduing pulmonary inflammation, yet numbers of children are daily falling victims to it. To pneumonia there seems to be a strong tendency in children weakened by previous disease; the slightest exciting cause will produce it. Children often survive weeks, nay months, with pneumonia, when it is scarcely suspected by Practitioners. Under the influence of slight, but protracted cough, a small portion of lung inflames. It is in part subdued, or remains stationary. The child's health is not much disturbed. On a sudden, fresh inflammation comes on, and an extensive disease declares itself.

Phrenitis is a very common disease among children, more common than hydrocephalus. It has appeared to be the immediate cause of convulsions and death in many of our patients. It frequently co-exists with inflammation of the abdominal, or thoracic viscera.

Diarrhœa and dysentery, as usual, greatly swell our catalogue of diseases. Enteritis and gastritis were very frequent during the summer months, and still present themselves to our observation. A case of chronic hepatitis, as dissection proved it to be, exhibited a large hard tumour in the left hypochondrium, in a child two years of age. Previous to the child's death*, the disease was supposed to be enlargement of the spleen. What is worthy of remark in this case is, that there was no tumour or tension, or tenderness in the right hypochondrium.

JNO. B. DAVIS,
THOMAS ADDISON, } Physicians.

SURGICAL REPORT.

THE surgical diseases of children in the Dispensary, during the three preceding months, have been with few exceptions of the usual nature and character.

Glandular disease is still, and probably always will be a prevailing attendant on indigent infancy. If this may not be accounted for by the natural efforts exerted by the system, to determine a progress outwards of morbid attacks on the lungs, intestines, and other important viscera, the result of exposure and other causes, at least there is an evident and intimate connexion between the glands and viscera; and as an indurated gland is, we know, in very many instances, an indication of internal disease, it frequently depends on us to suffer it to remain merely an indication, or to co-operate with nature in the process she seems to intend, though she has not the power to fulfil, and enable it to become a means of cure for that disease.

Numerous cases of ophthalmia of different species have been admitted; one, combined with pseudo-syphilitic eruptions and slight iritis. The complaint in this child was congenital; and as the mother, at the time it was admitted, had secondary symptoms, the infant was weaned, and by the regular administration of hydr. submur. for 3 weeks, it soon became convalescent.

Several cases of phymosis have been presented, all yielding to the usual treatment, but one, which, on account of its severity, and fatal termination, may perhaps merit a short description. This complaint occurred in a boy of 3 years old, on the sudden recession of the eruption of rubella: immediately afterwards the prepuce was observed to be much elongated, and painful to the

* The child was afterwards attacked with pneumonia, and died of it.

touch: the effusion into the cellular membrane increased, the integuments became of a deep red colour, and the symptoms, according to the report made to me, had been exceedingly aggravated for several days, by the employment of stimulating applications to the part, and the rejection of any antiphlogistic treatment. At this period the patient was brought to the Dispensary; and the appearance exhibited in the part, was that of erysipelas phlegmonoidis in its last stage. The prepuce was much discoloured, and its length at least 3 inches.

At the origin of the penis there was a distinct white line of demarcation, indicating an approaching slough. This process went on, in spite of every effort to prevent it, so as completely to divide the ligamentous connection of the crura with the ossa ischii and pubis. Convulsions were frequent, the abdomen became tense, the inguinal glands sympathetically enlarged: the sloughing extended to the scrotum, and the child died on the tenth day after its admission.

There is scarcely any kind of inflammation which requires so prompt a treatment, as this species of erysipelas, as it so speedily assumes the gangrenous character; besides, in its first stage it is tractable by the antiphlogistic plan, leeches, incision, &c.

There is an affection sometimes observed attacking the pudenda of female infants, (on its first appearance, bearing the simple character of intertrigo,) which seems somewhat analogous to the foregoing case. Among many cases on record, the only fatal instance was one, where stimulants were exclusively applied.

A case of fistula lachrymalis, in a girl 5 years old, was presented, in which the incision of the sac and injections of warm water have so far succeeded, that the tears now pass into the nose, a very slight epiphora only remaining.

A girl of 4 years old had an arrow shot into the right eye, which penetrated the cornea, wounded the iris, and burst the crystalline capsule. Staphyloma was the consequence. At the time she applied at the Dispensary, 3 days after the accident, the iris protruded with the edge of the lens, and there was incipient adhesion.

The patient was regular in attendance for a fortnight, by which time the inflammation was subdued, and absorption of the lens had commenced, but the belladonna did not succeed in preventing obliteration of the pupil by adhesion.

Some cases of abscess under the scalp, under the chin, and in the axilla, have been admitted: and one of abscess of the elbow joint, accompanied by sinusses, which for some time discharged a gelatinous fluid (probably synovia) mixed with pus. The cartilages were abraded, there was intense pain on the slightest motion of the joint, and the boy seemed rapidly declining. He immediately began taking the cinchona, twice a day; and a lotion of liquor calcis, and liq. ammon. acet. was applied to the elbow. He soon began to improve under this plan, and is now able to walk to the Dispensary regularly. The sinusses have nearly ceased to discharge, there is little pain on motion, and the arm has recovered a considerable power under the unavoidable condition of ankylosis.

One curious case of ranula was admitted. It was of a peculiar whiteness, resembling a globular pearl, and contained a gelatinous fluid. A slight puncture discharged the fluid, the cyst instantly collapsed, and no trace could be discovered of it subsequently.

Cases of hernia congenita; injuries of the radius, tibia, and clavicle; diseased spines; cases of sinuous ulcers, and of puriform discharges from the ear, &c. have been admitted into the Dispensary, and are yielding to the usual plans of treatment.

WALTER C. DENDY,

Surgeon to the Universal Dispensary for Children.

St. Martin's Lane, Dec. 13th, 1819.

THE METEOROLOGICAL JOURNAL,

From the 20th of NOVEMBER to the 19th of DECEMBER, 1819,

By Messrs. HARRIS and Co.

Mathematical Instrument Makers, 50, High Holborn.

D.	Moon	Rain	Therm.	Barom.	De Luc's Hygrom.		Winds.	Atmo. Variation.		
					Dry.	Damp.				
20			35 40 37	29 82 29 79		4 5	WNW W	Clo.	Clo.	Rain
21		,09	37 40 38	29 75 29 32		4 6	WNW SW	Clo.	Clo.	Sho.
22		,03	40 43 33	29 21 29 43		8 7	WSW N	Fog	Clo.	Fine
23			35 38 31	29 54 29 67		6 5	NW W	Clo.	Fine	Fine
24	☾		33 36 29	29 80 29 84		6 5	NW NW	Clo.	Fine	Fog
25			31 37 33	29 93 30 04		6 8	NW NNW	Fine	Clo.	Fine
26			34 39 36	29 82 29 90		7 8	WNW SW	Fog	Fine	Fog
27			38 40 32	29 95 29 92		9 9	NW WNW	Fog	Clo.	Fine
28		,08	34 35 42	29 87 29 70		8 10	W SSW	Fog	Fog	Rain
29		,19	49 50 50	29 54 29 73		12 11	WSW WSW	Rain	Rain	Clo.
30		,10	52 53 48	29 65 29 59		12 12	S S	Clo.	Clo.	Rain
1	☉	,20	49 49 42	29 86 30 10		12 15	NW SSW	Rain	Clo.	Fine
2		,25	49 49 37	29 97 30 10		17 13	SW WNW	Rain	Rain	Fine
3			39 40 38	30 20 30 20		10 9	WNW WSW	Fine		
4		,40	42 44 40	29 79 29 63		8 11	NW NE	Rain	Rain	Clo.
5			41 42 37	29 90 30 00		10 10	NE ENE	Fog	Clo.	Fine
6			38 39 33	30 08 30 10		9 9	ENE E	Fine	Clo.	Sleet
7		,05	36 37 30	30 03 30 00		10 8	E E	Rain	Sleet	Clo.
8			31 31 25	30 05 30 10		6 5	E ENE	Fine		
9	☾	,05	27 28 29	30 10 30 02		5 7	E ESE	Fine	Fine	Suo.
10			50 51 22	29 94 30 03		8 7	N NW	Clo.	Fine	Fine
11			23 26 26	30 03 30 06		7 9	WNW W	Clo.	Fine	Clo.
12			30 35 29	29 93 29 87		10 12	WSW WNW	Fine	Fine	Clo.
13			30 35 27	29 80 29 80		11 11	W WNW	Fine		
14			30 34 31	29 70 29 55		10 8	WNW WNW	Clo.	Fine	Fine
15			33 34 33	29 50 29 63		11 13	W WNW	Fine	Clo.	Fine
16			35 37 36	29 93 30 02		13 14	W SSW	Fine	Fine	Clo.
17	☾	,33	40 41 49	29 70 29 43		17 27	S WSW	Rain	Rain	Clo.
18			51 53 51	29 43 29 76		34 31	W W	Fine	Fine	Clo.
19			53 57 53	29 81 29 78		30 28	SW WSW	Clo.	Fine	Clo.

The quantity of rain fallen in November is 1 inch and 80-100ths.

A REGISTER OF DISEASES

Between NOVEMBER 20th and DECEMBER 19th, 1819.

DISEASES.	Total.	Fatal.	DISEASES.	Total.	Fatal.
Abortio	8		Febris <i>Typhus grav.</i>	4	3
Abscessio	9	1	— <i>Synochus</i>	19	1
Acne	1		— <i>Puerpera</i>	1	
Amaurosis	2		— <i>Remit. Infant.</i> ..	8	
Amenorrhœa	15		Fistula	1	
Amentia	1		Gastritis	1	
Anasarca	21		Gastrodynia	13	
Anorexia	3		Gonorrhœa <i>pura</i>	8	
Aphthæ <i>lactentium</i>	8		Hæmatemesis	2	
— <i>anginosa</i>	1		Hæmaturia	2	
Apoplexia	5	2	Hæmoptœ	10	
Ascites	5	2	Hæmorrhoids	8	
Asthenia	7		Hemiplegia	1	
Asthma	63	3	Hepatalgia	2	
Bronchitis <i>acuta</i>	7	2	Hepatitis	11	
— <i>chronica</i>	10		Hernia	2	
Bronchocœle	1		Herpes <i>Zoster</i>	1	
Calculus	1	1	— <i>circinatus</i>	1	
Cancer	1		— <i>præputialis</i>	2	
Carbunculus	3		Hydrocœle	1	
Cardialgia	6		Hydrocephalus	5	1
Carditis	1		Hydrothorax	5	3
Catarrhus	72		Hysteralgia	1	
Cephalalgia	23		Hysteria	10	
Chlorosis	5		Icterus	4	
Chorea	2		Impetigo <i>erysipel.</i>	1	
Cholera	9		— <i>scabida</i>	1	
Colica	2		Ischuria	2	
— <i>Pictonum</i>	3		Leucorrhœa	9	
Cystitis	2	1	Lithiasis	1	
Cynanche <i>Tonsillaris</i> ..	18		Lupus	1	
— <i>maligna</i>	2		Mania	3	
— <i>Trachealis</i>	3	2	Menorrhagia	11	
— <i>Parotidea</i>	4		Morbi Infantiles*	32	2
Delirium Tremens	1		— <i>Biliosi</i> *	15	
Diarrhœa	18		Nephralgia	1	
Dysenteria	9	1	Nephritis	1	
Dyspepsia	19		Neuralgia	1	
Dyspnœa	8		Obstipatio	8	
Dysuria	1		Odontalgia	19	
Ecthyma	2		Ophthalmia	15	
Enteritis	4		Palpitatio	4	
Entrodynia	2		Paralysis	8	1
Epilepsia	3		Paronychia	5	
Epistaxis	3		Pericarditis	19	1
Erysipelas	9		Peripneumonia	13	
Febris <i>Intermittent</i>	13		Pernio	5	
— <i>catarrhalis</i>	38		Pertussis	17	2
— <i>Synocha</i>	2		Phlogosis	2	
— <i>Typhus mitior</i>	18		Phthisis Pulmonalis	18	10

DISEASES.	Total.	Fatal.	DISEASES.	Total.	Fatal.
Plethora	1		Scabies	61	
Pleuritis	19		Scarlatina simplex	4	
Pleurodyne	4		— anginosa	9	
Pneumonia	16	3	— maligna	4	1
Podagra	2		Scrofula	7	
Polypus Recti	1		Spasmi	1	
Porrijo scutulata	2		Stricture	3	
— favosa	2		Syncope	1	
Prolapsus	1		Syphilis	22	
Prurigo mitis	1		Vaccinia	19	
— senilis	4		Varicella	9	
Psoriasis guttata	1		Variola	42	12
— gyrata	1		Verues	7	
Pyrosis	3		Vertigo	11	
Rheuma acutus	18		Urticaria febrilis	1	
— chronicus	26				
Roseola	1		Total of Cases	1124	
Rubeola	18		Total of Deaths		55
Rupia	1				

* *Morbi Infantiles* is meant to comprise those Disorders principally arising from dentition or indigestion, and which may be too trivial to enter under any distinct head; *Morbi Bilioi*, such Complaints as are popularly termed *bilious*, but cannot be accurately classed.

Observations on Prevailing Diseases.

THE rapid and extreme changes of temperature which the last month has witnessed might have been expected to produce, as we see they actually have produced, an abundance of those maladies which especially implicate the thoracic viscera. To this we submit, as to our endemic fate; but to see small-pox resume its ravages, excites more distressing feelings. The reader will perceive that no less than forty-two cases of variola are recorded, and of these the large proportion of twelve have proved fatal. What is the cause of this? While we refuse to close our eyes against the evidence of facts, in reference to this awfully momentous particular, let us, at the same time, be vigilantly on our guard against "the roaring lion" of prejudiced and determined anti-vaccination.

The following remarks accompany the register of our able Correspondent, Mr. Gaitskell:—

I report three cases of apoplexy in this month. The first recovered by timely bleeding, purging, and abstemiousness; but has left the patient slightly hemiplegic.— The second was a stout, plethoric man, about thirty-eight years of age. He was amusing himself with his little infant on the bed about half-past seven in the morning, when he was suddenly seized with a fit, and expired with the child in his arms.— The third was an elderly woman, about eighty-six years of age. This was her second attack. She had prelude symptoms of the disease some weeks before; but refused all precautionary means. The disease seized her suddenly at the threshold of her door about ten in the morning of Thursday last. She was instantly lifted on a bed, and I was sent for to attend her. Being at home, I waited on her in less than five minutes, (as she resided only a few doors from me,) and bled her freely from the arm. When the operation was finished convulsion came on, and continued more or less for two or three hours. After this she became composed, and slept, with little intermission, till Sunday morning, when she awoke, took some barley water, and now has recovered her senses, and sufficient power to raise and turn herself in bed. Some pur-

gative medicines were now administered to her, which procured four stools, and convalescence has taken place.

In three of the seven cases of cynanche tonsillaris, the inflammation ran so high that suppuration took place, and suffocation was only prevented by plunging a lancet deep into the abscess.

The polypus recti occurred in a woman, forty-five years of age, and gave rise to many very painful sympathies; such as strangury, lumbago, bearing down, and hæmorrhage. She frequently bled till syncope took place and stopped it. The tumour was the size of a filbert, with a long neck to it, which I was obliged to remove by ligature, as she would not submit to excision. In one week it dropped off, and now she is perfectly recovered.

Four cases of small-pox were fatal out of five. They were confluent, and the most putrid I ever saw. They all appeared perfectly black. Three of them died in one house, and children of the same parent. *Vaccination had been offered, but was refused.*

Two of the worm cases were of the lumbricus species. Being children, I gave them half a grain of lunar caustic, night and morning, in the form of a pill for a week, then purged them with calomel and jalap. This remedy was first suggested to me by my friend, Dr. Park; and I have the pleasure to say, it has fully answered my expectations.

MONTHLY CATALOGUE OF BOOKS.

A Treatise on Fevers, including the various Species of Simple and Eruptive Fevers. By A. P. Wilson Philip, M.D., F.R.S.E., &c. &c. Fourth Edition. 8vo.

A Treatise on Nervous Diseases. By John Cooke, M.D. Vol. 1. 8vo.

The Anatomist's Vade Mecum. By Robert Hooper, M.D., &c. Ninth Edition, enlarged. 12mo.

The Army Medical Officer's Manual upon Active Service. By J. G. V. Millingen, M.D. 8vo.

NOTICES TO CORRESPONDENTS.

Communications have been received this month from Mr. Edger, Mr. Parkinson, and Mr. Battley.

. Communications are requested to be addressed (post paid) to Messrs. T. and G. UNDERWOOD, 32, Fleet Street.

THE
LONDON MEDICAL
REPOSITORY.

No. 74. FEBRUARY 1, 1820. VOL. XIII.

PART I.

ORIGINAL COMMUNICATIONS.

I.

On the Appearances of the Blood as characterizing Inflammation, and indicating the necessity of further Depletion. By
C. HEINEKEN, Bow.

FROM the circumstance of several cases having presented themselves to me, where, with every evidence of existing inflammation, the blood drawn, (although flowing freely from a large orifice, and received into the basin without any obstruction,) did not put on the appearances usually pointed out as attendant upon inflammatory action, I have lately committed to paper a few instances in which this has occurred; and intended, with the additional evidence which time might have afforded, to have made them a subject for communication to the public: in this intention, however, I perceive from the REPOSITORY, I have been anticipated by the publication of Mr. Thackray; and I am therefore induced to offer them merely in corroboration of his deductions.

In March 1819, I was called to a middle aged plethoric woman, Mrs. H., of Brompton, (whom I had some time previously attended during a severe hepatic affection,) and found her labouring under most intense pain at the scrobiculus cordis, and right hypochondriac region, shooting through to the shoulders; increased by the slightest pressure, the erect position, or a deep inspiration; the pulse was

full and hard; tongue white; skin hot; and bowels confined. Thirty ounces of blood were drawn from a free orifice, and immediate relief was given; but on the following day not the slightest buffy covering was perceptible, nor was the crassamentum in the least cupped.

In September, I. R., Esq., residing in my neighbourhood, had every symptom of inflammation of the bladder. He was bled to the amount of sixteen ounces from as large an orifice and in as short a time as the quantity drawn could have allowed. Here, also, the blood had none of the usually denominated marks of inflammation. After the lapse of a fortnight, the complaint recurred, (with the concurring testimony of a medical friend as to its identity); the bleeding was repeated under similar circumstances, and with a like result.

At the same time, (September) I was attending Mrs. C., of Old Ford, who was suffering excruciating pain at the upper part of the abdomen; great anxiety of countenance; a pungently hot skin; small quick pulse; thirst; constipation; and vomiting. She could not endure the slightest pressure, and her sufferings were greatly augmented by full inspiration. I drew sixteen ounces of blood from the arm; and, if the manner of its evacuation could have ensured it, this blood must have borne the marks of inflammatory action; but neither in this, nor a subsequent bleeding to the same amount on the following morning, were any such appearances to be met with.

On the 4th October, George Squibb, æt. 42, a labouring man, belonging to the parish of Bromley, applied for relief in consequence of dysentery, with fever, and considerable pain in the bowels. He was ordered a grain of calomel, with half a grain of opium every third hour; and on visiting him the following morning, I found great pain over the whole abdomen, increased upon the least pressure; a quick, small, and wiry pulse; an anxious countenance; much fever, and tenesmus; though the latter had been in a degree relieved by the medicines, and the motions were becoming more feculent.

Six weeks back he had been attacked with pain in the bowels, which his medical attendant had then relieved by bleeding and other means; but it had recurred at intervals up to his present illness. I took twenty-two ounces of blood from his arm; the first sixteen from a very free opening into one basin, and the remainder, which flowed less freely,

into another. On the following day, the larger quantity was entirely free from buff, and not at all cupped; but that last drawn, had its edges slightly inverted, and its surface moderately buffed. This man died in consequence of a very severe attack of enteritis early in the present month: in fact, he was moribund when first seen by me, and the dribbling manner in which the blood then (in the fatal attack,) left the vein, renders it unfair to bring this forward in argument: the quantity of serum was large, and the crassamentum soft and yielding.

Leary Mc'Carthy, labourer, æt. 22. This man, also a parishioner of Bromley, was suddenly seized with violent pain in the right side of the chest on the 14th of October. I sent him five grains of calomel with one of opium, and a large blister.

On the following morning I found him but little relieved; his breathing was short, and hurried; he had a dry teasing cough, with a full hard pulse of 86 in the minute; and the attempt at complete inflation of the lungs produced most acute suffering. From a large orifice twenty ounces of blood were immediately taken; the first sixteen in a copious free stream into one cup; and the remaining four, which trickled over the arm, in consequence of approaching syncope, into another.

The relief afforded was *most decided*, and I never knew a man recover from so severe an attack so quickly; but in neither vessel did the blood put on the *slightest* inflammatory (according to its usual definition,) character.

A young gentleman, — R., æt. 17, was attacked, on the 21st of October, with sharp pain at the lower end of the sternum, increased on inspiration, and attended with cough, fever, and bilious vomiting. Sixteen ounces of blood were abstracted from the arm; but, although the orifice was large, yet by the stream being twisted in its passage from the vein, it flowed over the arm before reaching the basin. The pain was immediately and permanently removed, but the blood had a perfectly natural and healthy appearance.

Miss W., æt. 15, after having suffered from sore throat and hoarseness for some time, complained, on the 25th of October, of pain at her chest and side, and cough. The pain was exasperated by free inspiration, and attended with some fever and constipated bowels. A pint of blood was taken from a small orifice, and although it passed immediately into the basin, yet it was long in flowing: the relief afforded

was not so marked as I had anticipated, and the blood had no inflammatory character.

On the 4th of the present month I injected a hydrocele for a labouring man, named Harrington: the inflammation and pain on the succeeding morning were much more than usual, and I found it necessary to take twelve ounces of blood from him: the puncture (from the artery being directly beneath and very superficial,) was made on the side of the vein, and although the orifice was large, and the stream full, yet the blood passed over the arm before it reached the vessel; the inflammatory symptoms in a great measure subsided; but the blood was neither cupped nor buffy.

It generally happens, that a number of well-marked cases are suffered to pass by unnoticed, or only partially remembered, before the attention is called to the facts which they serve to substantiate. This has happened in the present instance; but still a sufficient number have been enumerated, and of character distinctly enough marked, to prove that inflammation *may* and *does* exist, unaccompanied by the buffy coat and cupped form of the blood. That these appearances are also seen independent of any inflammatory action, the following case will, I think, satisfactorily evince:

A bricklayer, named Whatham, in the 27th year of his age, had been bled, in four days, to the extent of a hundred ounces, in consequence of an injury to the head from a fall on the 31st of August. The blood, after each evacuation excepting the *last*, had no inflammatory appearance; but this (the last,) exhibited as *well-marked* a specimen of *cupped* and *buffy* blood as I ever remember to have seen. On examination after death, a very large coagulum was found between the skull and the dura mater; but *not the slightest* evidence of inflammation in *any part* of the brain or its membranes.

ALTHOUGH I have endeavoured to narrate the foregoing cases with as much perspicuity and impartiality as possible, yet I am aware of the difficulty of conveying *impressions* to the minds of others: *to me*, each case was stamped with the *decided* symptoms of inflammation, and until repeated observation had brought conviction to the contrary, I looked with confidence for the corroborating appearances of the blood: still, however, some may hesitate acquiescence, and allege, that as they all terminated favourably, no *positive* evidence has been adduced of the existence of inflammatory action.

In Whatham's case we have, however, the *experimentum crucis*. The poor fellow died and was examined, and that, too, under a conviction expressed at the time to a medical friend present, that inflammation had occurred; and yet not the slightest trace of it could be detected after the most careful investigation. By what character of blood are we then to be guided as to the necessity or propriety of further depletion? Certainly not by that generally termed inflammatory, for we here see many instances of its non-existence, although every other concomitant has been present; and one *strongly marked* case, in which, notwithstanding its presence, inflammation *did not exist*. I am inclined to be altogether sceptical upon this head; placing my sole dependence upon other symptoms, and regarding the appearance of the blood as of no moment whatever: while other proofs of inflammatory action remain, means must be had recourse to for their removal, and we know of none so safe and efficacious as the lancet: it is true, that, like all other good things, it may have been frequently abused, but I believe its principal abuse to arise from timidity and indecision: if an object is to be attained, the means must be persevered in until its attainment; and it is not the quantity of blood drawn, or the apparent strength of the patient, which should govern us, but the *effect* produced upon the *disease*.

II.

Remarks on Life and Mind. By THOMAS STAMP EDGER, Licentiate of the Royal College of Surgeons, Edinburgh, &c. &c.

——— "Is not the earth
With various living creatures, and the air
Replenished, and all these at thy command
To come and play before thee? know'st thou not
Their language and their ways? *they also know,*
And reason not contemptibly." — MILTON.

It is not without some degree of diffidence and anxiety, inseparable perhaps from our first attempt to appear in the pages of literature; and doubly so in this instance, from the reflection that the cause in which I have embarked has been handled by men so well known to the Profession, as they whose names have lately appeared in the *REPOSITORY*, on the debated point of life and mind; that I presume to offer an opinion, which differs, in some material circumstances, from any I have yet seen.

Whichever side of the question, indeed, be adopted by

the young psychologist, it naturally exposes him to the criticism and animadversions of those deeply versed in science, and supported in their arguments by the results of long previous researches into the present highly interesting topic of inquiry.

With cautious steps, therefore, I shall proceed to make a few remarks, suggested by the perusal of Mr. Fosbrooke's Paper*: it is my utmost wish, that they may be deemed worthy a place in the REPOSITORY, and that they may tend to elucidate the subject, which, from its very nature, will ever be involved in a certain degree of obscurity; for I am convinced that no theory of this nature, however ingenious, can be advanced so satisfactory in every particular, but that it may be shaken in its turn by opposing positions. In the fabric of the *human* mind, there are hereditary ingredients which give a zest to critical inquiry; and if there be a weak point in the arguments with which an author intrenches his doctrines, such point is quickly aimed at, and carried by a *coup de main*.

Mr. Fosbrooke, in the commencement of his paper, congratulates himself as being the ally of Mr. Abernethy: in some points they agree; but I do not find that the latter gentleman argues for the *compound* nature of life. It is certainly conformable to the principles of common sense, (and in inquiries of this nature, common sense is not so liable to lead the understanding astray, as the mysterious arguments of philosophy, which too frequently gain upon the multitude; because, forsooth! they are not fully understood,) to suppose that "mind is an active super-addition to the principle of life:" but I cannot by any means discern, how this observation is to establish the compound nature of life: it merely states, that there is a principle, which we call *life*; and another which we signify our conception of by the term *mind*.

In vegetables, says Mr. F., we have an example of life as a simple principle, and in man as a compound one: of what nature, then, I would ask, is that of the lower animals, which is certainly as superior to that of vegetables, as it is inferior to that of man? It must be more than what Mr. F. defines a simple life to be, that is plain, if we grant that it is a compound one, then, that is to say, "brutes have a soul," only not so refined an one as man possesses; for, says Mr. F., "a *compound life* is *mind* and *life*; and *soul* is merely *mind* in a *superior state*." Thus we see, that this wish to make life appear a compound principle, creates great con-

* REPOSITORY, August Number, 1819.

fusion, and almost forces us to a concession, highly repugnant to human nature. Until, then, we have a correct analysis of this *compound principle*, we must consider life and mind both simple and distinct in their nature.

Again, from casual reflection, I have been in the habit of considering the *mind* and *soul* as essentially different from each other, constituting two definite principles, in opposition to Mr. Fosbrooke's opinion, that "*soul is mind in a superior state*;" otherwise I should have been again compelled to allow a soul to brutes. — For, when I observe the sagacity of the dog; his attachment to his master; and the anxiety he evinces for his interest, and that of his family — when I observe the cunning of the canine tribe; their recollection of an injury, and their stratagems for revenge; and a thousand other instances of a like nature; can I for a moment doubt, whatever philosophers may say, that there is a similar operation constantly going forward in their *sensorium commune*, to that which we term reason; and this we suppose cannot be carried on without mind, unless we grant Mr. Lawrence's position, that thought is consistent with, and merely an operation of matter. To overcome this difficulty, then, and from a secret horror of placing a shepherd and his dog upon the same footing, with regard to immortality, I was wont to conclude, before I recollect to have read any particular treatise on the subject, that vegetables are possessed of life; brutes of life and mind; and man of life, mind, and soul; each of these being distinct and definite principles: and on more mature reflection, I have not yet found a reason for retracting this opinion.

It is to be observed, that in assigning to animals a mind, I do not confound this principle with what is usually termed instinct. Instinct is that power or principle which impels to the performance of certain actions, independent of thought or reflection, such as, in the common course of nature, are daily and repeatedly executed; and which, not having been preceded by any directly exciting cause, could not have been made the subject of thought. Instinct determines a bird to prepare a nest, before she has learnt the use of it. Instinct determines her to deposit her eggs in it, to sit upon them patiently during the period of incubation, and to select the most proper food for her tender offspring: but education tends greatly to overcome the influence of this principle, and the more animals are domesticated, the less of instinct do they require for the purposes of life. Education acts by enlarging the powers of thought and of reason; it cannot be said to operate upon instinct; for whatever is the result of education ceases to be instinct,

that is clear; and since it is the opinion of naturalists, that all the varieties of the canine race have originated from one species, the differences we at present observe having been effected by differences in their mode of life, education, &c., it is self-evident, that dogs must have, in some degree, the power of thought, and in no inconsiderable a degree either. This being granted, I ask, can the operation of thought be carried forward without a mind, unless, as I formerly observed, Mr. Lawrence's opinion be correct? We suppose not: then every candid person must allow that dogs have a mind. The same observations apply to other animals, only their minds may be more or less susceptible of the impressions of education, &c.

Instinct is common to man and brutes; but in the former, as well as in the latter, its dictates are superseded by those of reason, so soon as education has prepared the mind for the proper exercise of its reasoning faculties; it then ceases to be the guide of our actions; but when, from organic lesion or derangement, the operations of reason are interrupted, instinct, I imagine, may resume her seat, and determine the person so circumstanced to the performance of certain actions, trifling perhaps in themselves, but conjunctively contributing not a little to re-establish the system in its ordinary healthful course. It is probably instinct that directs a patient delirious from fever to take wine largely, when it is for his welfare, and with reluctance, or to reject it altogether, when it would be hurtful.

I cannot consider that Mr. Andree's "negative proof of the distinctive properties of the human mind" militates against the opinions brought forward in this paper; neither do I think that it affords any substantial support to that side of the question which he has adopted. "Insanity," he says, "is peculiar to the human species;" but we do not consider it an idiopathic disease; it "always originates in a corporeal cause; derangement of the intellectual faculties is but the effect;" and it need not be greatly wondered at, that brutes are exempt from that corporeal derangement, which, in the human species, induces mental disorder, since they are also exempt from many other diseases to which man is subject.

III.

Case of Asphyxia. By WILLIAM HUGHES, Member of the Royal College of Surgeons, Bloomsbury Dispensary.

THE following case, which I met with during my attendance on Dr. Davis's lectures, I have transcribed for the

REPOSITORY; since it is not a very uncommon occurrence, and the recital may be of service in similar cases attended by young Practitioners in midwifery.

Mary Canty, a poor Irish woman, had born two children, of whom, one was still-born, and the other died a few hours after birth. I was called to her about two o'clock in the morning; and soon after my arrival, finding her to be evidently in labour, I made an examination, and ascertained that the os uteri was considerably dilated, and the head presenting: in about twenty minutes, the pains becoming much stronger, I again proceeded to examine the progress of the labour, and discovered a considerable portion of the funis protruding through the os uteri. I endeavoured in vain to return it; and the head was too far advanced to attempt to turn the child: fortunately the pains increased in frequency, and about half-past three the child was born, but without the least sign of life. The circulation through the chord had ceased, and it was perfectly cold. I therefore did not hesitate to divide it. Although life was apparently extinguished, I conceived it might be only suspended in consequence of pressure on the chord during labour, for I had every reason to believe that the child was living when in the uterus. I expressed my intention immediately to use every effort to restore it; yet the nurse and two other females in the room were surprised at my proposal, and said, they were "sure such an attempt would be useless." Warm water was not at hand; I therefore placed the infant in a flannel napkin before the fire, and desired the nurse to rub its body, whilst I introduced a quill, which I quickly procured, into its mouth, and by pressing the thyroid cartilage to prevent the air from passing down the œsophagus, I succeeded in inflating the lungs. After persevering for nearly three quarters of an hour, I perceived a slight convulsive motion in the trachea: in the course of five minutes after the child began to breathe; I felt the heart pulsate; the blood circulated rapidly in the system; the skin became warm; and it perfectly recovered, to the great joy of its anxious parent, and to the astonishment of those present. The poor woman, whose expression of gratitude I shall never forget, called upon me some time afterwards with the child in her arms, a remarkably fine healthy boy. I have been induced to send this case, from having heard of a similar one lately, in which no attempt was made to restore the child.

IV.

Case of extensive Disease in the Abdomen, without commensurate Symptoms during Life. By Mr. FITZPATRICK, Surgeon, R. Artillery, Woolwich.

[Communicated by Dr. JOHNSON.]

I was called to visit a young gentleman on the evening of the 27th of August: he laboured under the following symptoms: headach; a sensation of heaviness and uneasiness about the stomach; alternations of heat and cold; a slight inclination to vomit, &c., which he attributed to his having eaten, the previous day, a quantity of unripe plums: he took an ounce of sulphat of magnesia soon after his having been taken with the above symptoms; and not finding himself relieved by its operation, placed himself under my care. Conceiving it probable that his symptoms depended on the lodgement of some of the fruit in his stomach, I ordered pulveris ipecac. \mathfrak{z} i. to be immediately given, and directed, that from the commencement to the close of its operation he should be supplied with tepid water. On again visiting him, about three hours after his having taken the emetic, I found that it had not fully operated, owing to his having refused to take any fluid after the commencement of its operation. In two hours after the effect of the ipecacuanha had entirely ceased I gave him submuriat hydr. gr. iv.; and soon after olei ricin. \mathfrak{z} vi. \bar{c} . aquæ menth. piperitidis \mathfrak{z} iss., directing tha the should be supplied with barley water as his common drink, with orders to his nurse to supply him therewith in such quantities as he might require during the night.

28th. — Visited him at half-past seven A.M., and found that he had, during the night, only one scanty evacuation. I ordered an ounce of castor oil to be immediately given; his symptoms continued, but were less urgent. I visited him again at twelve o'clock, when he complained of a severe pain about the rectum; to relieve which, I ordered the following lavement to be administered, although the castor oil had previously operated freely: olei olivarum \mathfrak{z} ij., aquæ tepidæ \mathfrak{z} vi., tinct. opii gutt. 40. His evacuations from the castor oil were of a deep yellow colour, extremely offensive, and he laboured under a stoppage or suppression of urine, which was drawn off by the catheter, in quantity about half a pint, its retention seemingly depending on the irritation at the rectum, as in the morning he had passed it with perfect ease. After the enema had remained on about four or five minutes, it was thrown off, unaccompanied with any

fœces, and the pain removed from the rectum to the epigastric region, which induced me to give him another small dose of castor oil, with peppermint water, and a few drops of the tincture of opium, ordering the abdomen to be fomented, determined, should the pain continue until one o'clock, (at which hour I expected the arrival of another medical gentleman,) to resort to bleeding, should that measure be approved. No relief was obtained by the fomentation; on the contrary, the abdominal muscles became rigid and violently retracted, attended with general but not acute pain on pressure. The gentleman whom I expected arrived at the appointed hour, and the patient was immediately bled. Whilst the blood was flowing he became sick at the stomach, his lips and face were pallid, and his pulse was almost imperceptible; we were therefore obliged to discontinue the bleeding, after having drawn off between eleven and twelve ounces, which produced no diminution of the pain, or of the muscular rigidity. I ordered the fomentation to be renewed, by which, at two o'clock, I found him considerably relieved, it not only having produced a suspension of the pain, and rigidity of the muscles, but also a general degree of natural warmth and moisture all over the body: he had an evacuation with which he passed a considerable quantity of flatus; after which, on returning to bed, he expressed himself very much relieved. As the evacuation, however, was scanty, with a view of producing a more copious one, I ordered the enema to be repeated; and a gentle diaphoresis having taken place on the surface of the body, which I considered desirable to encourage, I directed the *haust. salinus efferves. c. tinct. opii, et vini antim. sing. gutt. iv.* to be given every three hours. He fell asleep in about ten minutes after his having taken the first draught, and at half-past three o'clock a copious perspiration broke out all over the body, &c.; his pulse, however, did not rise to its wonted fulness, it continued small and frequent, about 100, but without any degree of rigidity: still feels pain on pressure, but says it is very inconsiderable. I gave him *sulph. magnes. ziv. in aquæ hordei ℥ii.* At four o'clock he again fell asleep, in which he continued till about six, when his effervescent draught was repeated, with *℥ii. of sulphas magnesiae*; immediately after taking which, he again fell asleep, and slept until seven: now complaining of a sensation of fulness about the stomach, I ordered the enema to be repeated, and the saline draught, as last taken; the perspiration and state of the pulse remaining unaltered. At eight o'clock in the evening the medical gentleman, who visited the patient with me in the early part of the afternoon, again

attended; we found his pulse 120, and extremely feeble and thready: he was suddenly seized with an inclination to go to the chair, and evacuated a small quantity of a thin yellow fœces, and whilst on the chair threw up likewise a small quantity of fluid, of no particular smell or colour, merely what he had been previously drinking. On his returning to bed we found his pulse 102, but still extremely feeble; pressure on the abdomen (which was a little elevated, but not tense or rigid,) produced a degree of uneasiness, not amounting to pain. As he had no evacuation since morning which could be considered a regular fœcal one, the saline draught, with the sulphat of magnesia, was directed to be continued every two hours during the night, so as freely to act upon the bowels: two or three spoonsful of thin arrow root, &c. were directed to be occasionally given: this, however, he threw off his stomach as soon as he had taken it, having previously expressed a dislike to it. His pulse ranging from 96 to 104, continues as before. At his own request I ordered a small quantity of coffee to be got ready for him, and whilst in preparation, had the abdomen fomented, which, he said, afforded him considerable comfort. The abdomen continuing full, although without pain, as he felt no disposition to an evacuation, the enema was again resorted to, which remained on about twenty minutes, and was then ejected, with some fœces, accompanied with flatus, after which he could bear pressure on the abdomen without the slightest pain: he passed his urine in the bed, whilst using the bed-pan, not involuntarily, but merely from the peculiarity of his situation, as, previous to its emission, he asked me if he might do so. Soon after the bed-pan had been withdrawn he threw up about half an ounce of the coffee, and requested to be allowed a glass of lemonade, which he wished to have warm. At half-past twelve, on the morning of the 29th, I found him in a copious warm perspiration, his circumstances in no other respect altered; he expressed himself disposed to sleep, which I directed should be indulged. He slept until two o'clock, when I found his pulse softer and more natural, fallen steadily to 94: he called for the bed-pan, but passed nothing. He now firmly stood up in bed, and holding himself the vessel, passed about a pint of urine in a full stream; he then lay down in bed, and laughingly said, that he would recollect the green gages the longest day he had to live, observing how rebellious his bowels were against the operation of medicine, to which, he added, they were not as yet sufficiently broken in. I now gave him a pill composed of submuriat hydr. gr. iv. pulv. ant. gr. ii.

and increased the dose of the sulph. magnes. in the saline draught to zij . which I directed to be given every two hours: his tongue became now almost perfectly clean, being only thinly covered with a whitish slime or mucus. I left him, ordering, that should he show any disposition to sleep, he should not be disturbed. Between the above hour and seven he had three moderate evacuations, of a deep yellow colour, with each of which he told me he passed a considerable quantity of flatus; he discharges his urine freely; his pulse became more full and soft after those evacuations; but, what will appear extraordinary, the heat of his skin increased, the abdomen became more elevated, and he expressed some pain on pressure being applied to the parts in the immediate vicinity of the umbilicus. His tongue becoming more dry, and loaded with a brown incrustation, I ordered the abdomen to be fomented for half an hour, the effervescent draughts, &c. continued: he occasionally takes the tepid lemonade, which he very much likes: after the fomentation, the abdomen was rubbed with a liniment, composed of one part of the *oleum olivarum*, and two parts of the *liquor cornu cervi*; his hands, face, and breast spunged with equal parts of vinegar and water, from which he felt refreshed, and at nine o'clock he had a copious dark-coloured evacuation. At ten o'clock the anterior part and edges of the tongue more clean and moist, whilst its centre and posterior part continued covered with a brownish coating; pulse much more full, and tumid state of the abdomen unaltered; retains every thing on the stomach, without exciting the slightest degree of uneasiness; skin moist, which, however, to the touch, gives a sense of a dry and ardent heat, as if glowing through the humid or liquid covering: he had, at eleven o'clock, another evacuation of the same colour and consistence as the former; pulse 92, and unaltered in other respects. He expressed a wish that no more injections should be administered, as he experienced pain from the introduction of the pipe of the syringe. From the above hour till two there was no observable alteration: he now fell asleep, which continued an hour: he expressed a wish for a little rice milk, which was ordered, but which, when prepared, he refused: the fomentation and friction were repeated. At four o'clock I found he had two more evacuations, the last more formed and natural than any of his former ones: he had now a visit from his aunt and uncle, by which he at first appeared considerably affected. At five o'clock he fell asleep, immediately after having taken his effervescent draught; and on my visiting him at six o'clock I found him still asleep,

with his face rather flushed, and respiration hurried. I found that, previous to his having fallen asleep, he had taken a little milk, and a cup of tea, prepared, as he supposed, by his aunt; for his previous objection to such articles arose from his dislike to their preparation by the nurse, a feeling or a fancy which continued the whole of his illness. At eight o'clock I found him again asleep, and in a general and copious perspiration; his tongue less loaded, but of a sodden appearance: he instantly, on being roused from his sleep, expressed himself much refreshed, and entered into an animated conversation about the inhabitants, constitution, &c. of the Isle of Man, where he occasionally resided, telling some curious and ludicrous results arising from the changes which, a few years since, took place in its municipal laws and regulations. He expressed a wish for a little warm milk, which was immediately supplied. His relations above mentioned having been in conversation with him for a short time, I found him at ten o'clock rather flurried, although they cautiously avoided to engage him in conversation: his pulse is considerably accelerated; and his skin, although moist, rather hot; has had an evacuation of a darker colour, and more foetid than any he had passed within the last six or eight hours; the abdomen still elevated, with the sense of pain on pressure removed from the umbilical region to that of the left lobe of the liver; in every other part of the abdomen the slightest touch appears to give a more unpleasant sensation than a general and heavy pressure; the effervescent saline draught was given throughout the night, without the sulphat of magnesia.

30th. — I found that he had slept from half-past twelve until seven; between which hour and that on which my visit was paid he had two evacuations of rather a tolerable consistence, but of a darker colour than the previous ones; tongue brown, but not much coated; pulse 80, and more natural: he requested a small quantity of milk as before; the effervescent draughts were again given, with *ziii. sulph. magnesiæ*. At half-past eleven o'clock he passed about a pint of urine, high-coloured, which, on standing a short time, deposited a large quantity of a lateritious sediment; he had also an evacuation per rectum, less in quantity, but of the same colour and consistence with the last. At twelve o'clock he complained of griping; his abdomen more tense and distended than it has been at any time within the last twenty-four hours. I ordered him to be fomented, and on questioning him found, that having expressed a wish for a draught of cold water, the nurse supplied him therewith; immediately after taking which he felt uneasy, his uneasi-

ness, being accompanied with shooting erratic pains all over the abdomen; his pulse not in the slightest degree altered; but his skin is more dry and hot: he was relieved by the fomentation. At two o'clock I found the feelings about the abdomen more painful; an anxiety and flush of countenance which had not hitherto existed; a disposition to dose; and a disinclination to take any of those things which he hitherto seemed to like. His other medical attendant and myself saw him at one o'clock, when we agreed to continue those remedies, &c. from which he usually experienced relief; and at half-past one, after a copious and free evacuation, he felt much relieved: he soon after fell into a sound sleep, which continued until three, from which, however, he does not appear refreshed; skin continues dry; pulse small and accelerated; more uneasy about the stomach; has made some urine of a deep reddish colour, the same as that of the morning; fomentation repeated, which did not afford that relief he usually experienced from it. At five o'clock he had an evacuation of a yellow bilious matter, not large in quantity, but of a better consistence than any he had lately passed: after it he felt very much relieved, although the tension of the abdomen, with some pain on pressure, continued. Another medical gentleman, whose arrival I for some hours expected, now arrived, who, on examining his fœces, and seeing the state of the abdomen, resolved on bleeding, which did not afford much relief, nor occasion any alteration in the state of the pulse. Whilst flowing, the pulse sunk after nine ounces were drawn off; as it cooled, it formed into a thick buffy mass, and at eight o'clock it had separated into three ounces of serum and six ounces of cruor, with its buffy coating, which might be an eighth of an inch in thickness. Although the evacuations had been already considerable, it still was determined that he should take the following:—submuriat hydr. gr. ii. pulveris antim. gr. ii. formed into a pill and given with olei ricin. ʒvi., and that the latter should be repeated every three or four hours, until free evacuations should have taken place. At eight o'clock another Physician arrived, who, not satisfied with the effect of the former bleeding, resolved on repeating it: the blood which was drawn off, (whilst this Physician held the hand of the patient to watch the operation of the bleeding on the pulse,) on standing in the vessel until eleven o'clock, separated into serum two ounces, and a firm cruor, without any buffy coating, six ounces: his pulse, after the bleeding, became rather less frequent and softer, but his feelings would not admit of any further evacuation. I examined the

relative solubility of the coagula of both the bleedings in water, and found the coagulum of the blood first drawn dissolve therein in a larger proportion than that of the latter. It was now determined that—should the sensation of pain recur in any higher degree, as general bleeding seemed to have afforded little or no benefit, perhaps from the very small quantity we had been enabled to take away at any of the attempts we made—leeches should be applied to the abdomen. At eleven o'clock, the symptoms becoming more urgent, I applied twenty-four, which drew off a considerable quantity of blood, after which he felt very feeble and oppressed, and called for some hartshorn, which roused him. At twelve o'clock at night he continued in nearly the same state; the sensations of the abdomen on pressure did not appear to be much if at all diminished by either general or local bleedings.

31st.—At three o'clock A. M. I repeated the castor oil, a part of which he threw off his stomach; but that which remained on produced, before six, three evacuations of a deep yellow colour, and very fetid: there still exists a fulness of the abdomen, with a sensation of uneasiness on pressure, which can hardly be called pain, but which, however diminished, still induced me to repeat the pill and draught; the pulse having become more full and soft than it had been at any time yesterday. At eight o'clock I put him into the warm-bath, wherein he remained for ten minutes, and by which he expressed himself to have experienced great relief: immediately on coming out of the bath he had an evacuation per rectum, and at the same time passed a considerable quantity of a turbid urine, of the colour of turmeric: between eight and ten he had the bed-pan twice; the evacuations were scanty, and of the same colour and consistence as the last; skin soft and warm, but without any moisture; pulse 86. At two o'clock P. M. pulse more full and firm; in other respects unaltered. I now repeated the pill and draught: he was again, at half-past four, visited by the last Physician who had been called in, who again decided on bleeding him, and who suggested that he should be confined to whey, barley-water, and toast and water; that the more drastic purges should be discontinued, and the *mistura ex oleo ricin. ꝑ. vitello ovi*, &c. should be substituted, and given in small doses at short intervals: the first dose nauseated his stomach; it was therefore, for the present, discontinued, and his former medicine, the saline draught, again resorted to: he had some small evacuations within the last three hours, which were of a much darker colour than they hitherto had been; and his urine of a limpid clear straw colour, depositing no

sediment; the abdomen is much less tense, and he admits of free pressure on every part thereof without experiencing the slightest pain. The blood was drawn off in different cups, and that in each became buffed; the cruor, when separated from the fibrine, was of a more dense and cohesive texture than that of the former bleedings.

1st Sept.—No alteration has taken place in his feelings since last I saw him: he early this morning had a scanty dark-coloured evacuation per rectum, with a very copious discharge of a light-coloured urine: he took a fancy to new milk, of which he took, between eight and eleven o'clock, about half a pint, immediately after which he had two copious evacuations of a lighter colour and more solid consistence than the previous ones; urine again loaded; he appeared in every respect much improved, although, from the previous varied circumstances of his disease, the improvement could not be considered such as to produce any well-grounded confidence of ultimate recovery, as there still existed that degree of disease which demanded the greatest attention and caution; an opinion which I delivered to his relatives, who, pleased with the favourable change which they witnessed, indulged in an almost confident expectation of his recovery. I at one o'clock P. M. again tried the effect of the castor oil mixture, which remained on his stomach without any inconvenience, and repeated it at four o'clock, at which time he felt comfortable and cheerful. His aunt now left him, after a short visit, gratified with the favourable circumstances in which she found him; his other relatives had taken their leave a few hours before, with similar feelings. At five o'clock he became suddenly very ill, after having taken a draught of plain barley-water; he complained of a pain about his stomach, and of an uneasy sensation all over the abdomen. I ordered an enema *ex olio olivar.* &c. to be immediately thrown up, which was soon discharged, and followed by a considerable quantity of flatus, which did not give him any relief: I then resorted to the fomentation, and this not alleviating his symptoms, I took away ten ounces of blood. The two medical gentlemen who first saw him with me arrived soon after my having bled him; on their arrival, it being considered that he could not bear any more bleeding, a large blister was laid over the abdomen, and, subsequently, various other applications, such as suggested themselves to the other gentlemen and myself, were resorted to without the least salutary effect: he continued in a state of inquietude, and perfectly sensible until a quarter past four o'clock on the morning of the second, when he breathed his last almost

without a struggle, attended the whole of the evening and night by his aunt and cousin, whom I sent for immediately after his having relapsed, as well as by the Physician who was first called in to attend him, and myself.

On the afternoon of the third I opened the body, in presence of two other medical gentlemen, when I discovered an extent of disease which I scarcely ever, on any previous occasion, witnessed; the abdominal peritoneum was throughout a good deal thickened, but in no part vascular; a considerable quantity of pus and coagulable lymph were interposed between it and the intestines, with which it formed partial adhesions, particularly at the left side; the convolutions of the small intestines were remarkable for the regularity of their disposition, and were throughout agglutinated by interposed coagulating lymph; they were, however, very easily separated, and although we could not discover the slightest vascularity in the abdominal peritoneal lining, this was not the case with the extension of that membrane over the intestines, which we found in a high state of vascularity; posteriorly, near the pyloric orifice of the stomach, we discovered a circular ulceration about two inches in diameter, which, however, was so superficial, that on examining it with the finger, I at first imagined I passed it into the stomach, but soon discovered that I had only passed it into the peritoneum, which covers that organ, and which here was considerably rugated, the stomach being nearly empty. The whole of the left lobe of the liver was of a deep pink colour, whilst the right one was of a dark bluish tinge; but both parts, on being cut into, were found in a perfectly healthy and natural state. We examined a portion of the ilium, which appeared to exhibit the strongest marks of inflammation, but which, on inverting, we found, as to its internal or mucous surface, without the slightest mark of inflammation, lined with a considerable quantity of mucus, and of liquid fæces of a deep yellow colour. We found a quantity of purulent serum, amounting at least to two quarts, diffused through the cavity of the abdomen. The bladder and stomach were in a perfectly sound state, as were the kidneys, spleen, and pancreas; the omentum was almost entirely obliterated, reduced to a ragged fringe, not occupying one-third the space it is found to extend over in its natural or sound state. I examined with the greatest care from the duodenum to the rectum, for any lodgement of plum stones or other extraneous substances, from which the whole canal was perfectly free; the cœcum, too, seemed to have acted with the other intestines, and was almost entirely empty.

I am aware of the prolixity with which I have laid the

above case before the public, and that many parts of the statement might, nay, ought to have been entirely suppressed: I determined, however, to send it forward with all its imperfections, just as it was taken down, I might say, at the patient's bed-side. I am also aware that many speculations will be formed on reading it; some, perhaps, will say that bleeding was not carried to a sufficient length at the commencement; some, that too solicitous an attention was paid to the state of the bowels; some will perhaps observe, that from the presence of particular symptoms, and the absence of others, the existence of peritoneal inflammation was evident; whilst none indicated the presence of gastritis or enteritis. The disease, however, at its commencement, exhibited no other symptoms than those which might fairly be attributed to the cause so much insisted upon by the patient, viz. of common fever. On his application to me, the abdomen was perfectly free from pain, tension, or rigidity, and continued so until the following day, when symptoms took place, not generally attending the disease under which he was subsequently supposed to labour, or that which dissection proved to have been the cause of his death; nor was the disease even then, or at any subsequent period, marked with that high sensibility to the touch, or to external pressure, which is generally considered as the peculiar characteristic of peritoneal inflammation; whilst the occasional, almost total suspension of pain; the relief experienced from applications little calculated to effect any very important change under circumstances of active inflammatory action, particularly in parts so inelastic and unyielding as the peritoneum; the frequent changes from a tense and painful, to a perfectly compressible state of the abdomen, and a total absence of pain, present, in my opinion, phenomena calculated to surprise those most conversant with the varieties of disease, and would render it difficult for any one to say what the disease really was, had not its nature been discovered by the appearances which presented themselves on dissection. And here another question arises, perhaps of no less important consideration; How was the immense quantity of the fluid found in the abdomen formed, or whence derived? The intestinal peritoneum, it is true, was found in a state of inflammation; its minute vessels were seen beautifully ramifying and decussating each other over its smooth and polished surface; but then there was no vessel of any magnitude, no rupture, no ulceration; the vessels, as far as I could discover, were perfectly continuous and uninterrupted; the abdominal peritoneum was without the slightest mark of having undergone any inflammatory

action, if we do not consider its unusual thickness, (a circumstance which might be merely accidental) as an evidence of its having undergone that action; how, then, I would ask, or at what time was such a quantity of purulent serum formed, when we find the disease confined to a texture purely serous? Some of my readers, like many authors, who, under circumstances of inflammation, give to the exhalant vessels an extraordinary power of throwing out every variety of fluid from the most subtle to the thickest consistence, will find a ready solution for this difficulty: this power, however, in such vessels, they will allow me to doubt; for neither experience, nor the opportunities of observation which I have had, allow me to think it possible that a fluid so large in quantity, and of such a consistence, could have been secreted by such a texture as in this case we have found diseased, in so short a period; but if asked, How it could otherwise have been formed? I must confess myself incapable of offering any opinion on a subject which appears to me involved in much obscurity and doubt. I am not allowed to suppose a disease to have previously existed which produced some of the effects discovered on dissection; a supposition hardly supported by the reports I had of the feelings, circumstances, and conduct of the patient, immediately previous to his having fallen ill.

DEPARTMENT OF NATURAL HISTORY, &c.

Calendar of Flora and Fauna, kept at Hartfield, near Tunbridge Wells. By Dr. T. FORSTER, from the 7th of December to the 14th of January, 1820.

Dec. 7th.—*Gallinula chloropus*, the Water Hen, approaches very near the house; cold frosty weather.

8th.—Wild Ducks numerous, and fly round in large circles in the air. Fieldfares and Starlings very numerous.

10th.—Very cold weather. The thermometer in the night as low as eight degrees of Fahrenheit.

13th.—Large specimens of *Agaricus lactifluus* found between Hartwell and Chartness farms, at Hartfield. *Regulus Europeanus* frequent.

14th.—The hard frosty weather is changed for a rather milder air, west wind, and an obscure sky. About 5 P. M. I noticed a brilliant meteor, of a brazen colour, descending in the S. E., near Withyham. This phenomenon is unusual

in the present kind of weather. The Bittern was shot at Groom-bridge.

15th. — *Picus viridis*, the Green Woodpecker, approaches very near the house. I have observed that the Jay (*Garrulus glandarius*) is become very scarce in this neighbourhood.

18th. — The weather, which changed yesterday, is now as warm as it was cold last week. The thermometer 50 at midnight. The floods are out in the meadows, which have the appearance of a large lake.

19th. — *Lamium purpureum* in flower on a bed of dung rubbish: but these unseasonable flowers, from this year's seedlings, seldom produce productive seeds; the cold usually kills the flower first.

25th. — The leaves of the Poëtic Narcissus appear above ground.

26th. — Weather again frosty and cold. I saw to-day apparently the Yellow Wagtail (*Motacilla flava*), which is said to depart from England in October; but which Mr. White, of Selborn, and Mr. Markwick of Sussex, mention as being seen in winter. The very slight difference of colour between this bird and the Grey Wagtail (*M. boarula*) may, perhaps, at first sight produce some confusion between the two evidently distinct species. The Pied Wagtail (*M. alba*) is become less numerous, as is usual in winter.

27th. — Snow on the ground; the fungous and overlapping excrescences on the wicks of the candles, indicate another fall of snow or rain: a prognostic mentioned by Virgil and by Aratus.

31st. — Very cold frosty day: the thermometer fell during the night so low as two degrees of Fahrenheit.

Jan. 1st, 1820. — Very cold day; barometer rising. The *Viscum album* is very abundant and full of berries this year, as I had occasion to notice from the number sold before Christmas, to hang up as Missletoes.

9th. — Barometer as high as 30.60 in the morning: the weather still remains very severe, though the harm done by the frost to the plants is now likely to be diminished by a heavy fall of snow. Small birds in great numbers perish daily from the cold and scarcity of their food. The wandering Tailpye (*Mecistura vagans*) has been seen in small flocks of late in this neighbourhood.

10th. — Barometer, which continued falling all yesterday, is again risen a little. I have observed of late that the falls of snow have taken place with a rising barometer; and the greatest degree of cold has been noticed when the barometer began to fall again; the change to thaw also has

happened exactly twenty-four hours after the minimum degree of cold.

14th.—This day proved extremely cold, and the night following was the severest ever remembered in this neighbourhood. The thermometer at midnight was $0-2^{\circ}$, and in the course of the night fell to $0-10^{\circ}$, that is, ten degrees below Zero. Great numbers of birds fell down dead, and were found frozen on the ground.

Some seedling plants of *Papaver somniferum*, which sprung up late, remain frozen, though apparently not killed by the frost.

[This Journal is to be continued in the neighbourhood of
Tunbridge Wells.]

PART II.

GENERAL REVIEW

OF

MEDICAL LITERATURE,

FROM JULY 1819, TO JANUARY 1820.

(Continued from page 27.)

PHYSIOLOGY.

IN pursuing our retrospective labours, we are happy to commence the present division with the notice of so respectable a publication as that of Dr. Cooke's *Treatise on Nervous Diseases**. Against this book, indeed, we have heard the objection urged, that it is a mere compilation; but with such compilations as the one now immediately before us, it would argue something worse than bad taste not to be highly gratified. The author of this treatise has intimated, it is said, that were each fellow of the college to take up one given subject connected with medicine, and trace its literature from the earliest periods to the present time, as he has done in relation to the nerves, a system of ancient and modern pathology might thus eventually come to be issued from the learned body, of which our present author is a member, that should prove at once

* A *Treatise on Nervous Diseases*. By John Cooke, M.D., F.A.S., &c. &c.

a national benefit, and present a lasting memorial of the talent and industry of the individuals concerned in the undertaking. If such an intimation has really been given by Dr. Cooke, we hope that, in a degree at least, it will be acted on by his respected colleagues.

The work before us is prefaced by a very interesting survey of what every author has suggested on the *quo modo* of perception and intelligence, from Hippocrates, Plato, and Aristotle, down to Berkley, Hume, and Reid; and Dr. C. has introduced into this preliminary discourse an able and succinct account of the experiments and reasonings of Bichat, Le Gallois, Wilson Philip, and Brodie, in respect to the nature and uses of the nervous system. As the views taken of the relative powers of the different parts of this system, by the above-named Physiologists, are new, and perhaps not generally familiar to our readers, we shall endeavour here to abridge Dr. Cooke's very interesting statement of the peculiar doctrines which the speculations of these theorists involve. M. Bichat considers life as of two kinds, animal and organic, each possessing two orders of functions. The first in the animal life is from the exterior of the body to the brain; the second from the brain to the organs of locomotion and voice. Contrary to the opinions of preceding anatomists, who have usually regarded the nervous as an uniform system, Bichat conceives that there are two general systems involved in the nervous organization; the one having for its centre the brain and its dependencies; the other the ganglions—the first belonging mainly to the animal; the second to the organic life. Neither of them, however, is strictly confined either to the one or the other life; since the nerves of the brain send some prolongations to the glands, and to the involuntary muscles; whilst from the ganglions some branches are transmitted to the voluntary muscles. Understanding is a function of the animal; the passions belong to the organic life. The ganglions M. Bichat considers as having each an independent action and its own nerves; so that while the animal life has an *unique* centre, which is the brain, the organic system is constructed differently: it is this system, he says, that especially demands further investigation by the physiologist and pathologist, and respecting the laws of which much remains to be developed.

Le Gallois infers, from a series of experiments, that the phenomena of life, sensation, and motion, are not in so great a degree to be attributed to the brain and cerebellum as has been generally supposed. The celebrated Fontana, after having decapitated rabbits and guinea pigs, was able to preserve those animals alive for a very considerable length of time, by tying up the vessels of the neck, and thus preventing

hæmorrhage, and by blowing air into the lungs; experiments which clearly prove that the life of the trunk does not immediately depend upon the brain. The destruction of life by decapitation Le Gallois supposes to be effected by the deprivation thus occasioned of the power of breathing: he conceives, however, that respiration does not depend upon the brain, but upon a circumscribed part of the medulla oblongata, near the occipital opening, towards the origin of the eighth pair of nerves; and he conceives that the principle of sensation and motion, so far as relates to the trunk, resides altogether in the spinal marrow; and, moreover, that the life of each part depends especially on that portion of the marrow from which it receives its nerves. Life, in Le Gallois' opinion, is the result of a certain impression of the arterial blood upon the brain and spinal marrow; and the two conditions necessary for the maintenance of life in any portion of an animal are, the integrity of the corresponding spinal marrow, and the continuance of the circulation. A real and very important distinction is to be made between the organs which receive their nerves from the grand sympathetic, (which has its roots in the spinal marrow,) and those which receive their nerves immediately from the medulla oblongata and spinal marrow. The first have their principle of action in the whole nervous power; their functions are not under the influence of the will; they are constantly in exercise: whereas the latter, on the contrary, have their principle of action in a circumscribed portion of the nervous power—they are voluntary, and temporary. In this view something like Bichat's doctrine of the two lives will be discovered; but Le Gallois differs widely from the first-mentioned physiologist in regarding the organic life as dependent, as well as the other, upon the brain and spinal marrow, and being, indeed, that which receives from them the *most powerful* influence.

Dr. Wilson Philip maintains, that "the power of the muscles, both of voluntary and involuntary motion, is independent of the nervous system, and arises from the muscular fibre itself. Both these sets of muscles are equally capable of being excited by the nervous influence; but while this influence is the sole stimulus to which the muscles of voluntary motion are subject, it acts only occasionally on the muscles of involuntary motion, which are excited in all their usual actions by stimuli independent of it, and, consequently, of the will. When the latter muscles are excited by the nervous influence, it is not applied to them in the same way as to the muscles of voluntary motion, to which it is sent directly from the brain and spinal marrow, each muscle receiving its nervous influence from a particular

part of these organs; while to the muscles of involuntary motion it is sent through the great chain of ganglions, each muscle receiving its nervous influence from every part of the brain and spinal marrow."

Lastly, Mr. Brodie, from some experiments which he instituted with reference to these points, conceives himself warranted in concluding M. Le Gallois to be incorrect in stating, that the principle which animates each part of the body resides in that portion of the spinal marrow from which the nerves of the part arise. From other experiments, Mr. Brodie suggests, that the immediate cause of the contraction of the heart may be certain impressions communicated through the nervous system, rather than the stimulus of the blood in its cavities, as conceived by Haller, and most other Physiologists*.

* As these experiments of Mr. Brodie have not hitherto been published, excepting through the medium of Dr. Cooke's work we shall here transcribe them.

Experiment 1. — "In a rabbit, nearly full grown, I divided, at one incision, both the carotid arteries near their origin, and also the other vessels in the lower part of the neck. There was a profuse hæmorrhage, and in thirty seconds all appearance of sensibility and voluntary motion had ceased. Two minutes after the division of the blood-vessels I opened the chest, and I found the heart acting one hundred and forty times in a minute. The contractions were regular and vigorous. The muscular parietes were firm and unyielding to the touch; and the appearance of the heart did not at all differ from that in the living animal, except that it was of smaller size, in consequence of its cavities not being distended with blood. An incision having been made in the right ventricle, a very small quantity of blood oozed from it; but the left ventricle was entirely empty."

Experiment 2. — "A rabbit was inoculated with the Woorara poison, and when apparently dead, the circulation was kept up by means of artificial respiration (as explained in the Philosophical Transactions for the years 1811, 1812). The thorax having been opened, the heart was found acting one hundred and forty times in a minute. I divided the aorta and vena cava inferior immediately below the heart. There was, of course, a profuse discharge of blood, and the heart became almost immediately empty: but this produced no alteration in its action. At the end of two minutes, the contractions were still as regular, frequent, and vigorous as in the living animal. From this time, the contractions became less frequent, and also feeble and irregular." — As, then, in these experiments the action of the heart continued unaltered for at least two minutes after having been emptied of its blood, it is fair to presume that such contractions are not produced by the stimulus of blood. It appears to us, that

We have thus ventured, at the risk of being charged with repetition, to embrace the opportunity afforded us by the notice of Dr. Cooke's prefatory essay, of placing in one concentrated point of view the recent doctrines broached on the subject of nervous influence by the several authorities just named; since, as above intimated, the doctrines are probably novel to many of our present readers; and since to none can it be entirely uninteresting thus to see these reasonings and opinions placed in connexion.

With respect to the question of vitality, as resulting from organization, or being a something appended to the otherwise lifeless mass, Dr. Cooke merely contents himself with being (as, indeed, in all other particulars,) the historian of others' views. Having adverted to the disputes of Mr. Abernethy and Mr. Lawrence on this head, our author goes on to mention the recent speculations of Drs. Gall and Spurzheim, both as they refer to the connexions and distributions of the nervous organization, and to the manifestation of animal and intellectual phenomena. These authors (Drs. G. and S.) do not admit of a common origin of the nervous system. They contend that the spinal marrow and nerves do not properly originate from the brain, but are merely in connexion with that organ. They are of opinion that the great sympathetic nerve has its source in the various ganglia dispersed through the abdomen and thorax, independently of the brain: and they contend that the white, or, as it has been usually called, the medullary substance, both of brain and nerve, is of a fibrous construction, and has its origin in the cineritious portion of these organs, which they thus view as the matrix of the fibres, in the same manner as the soft cartilaginous substance which precedes bone in the young subject is of true bone. They think that the convolutions of the brain itself are formed by an union or tissue of diverging and converging fibres, beyond which tissue, each duplication may be easily separated into two layers by gentle extension with the fingers, by the injection of water, or by the application of a small but constant force, as in hydrocephalus. In a former part of the essay now under notice, Dr. Cooke refers to Laurentius' Account of the Arabian School of Physiologists, as being an anticipation of the peculiar notions of Gall and Spurzheim, on the topic of

the above deduction is not only legitimate, but that the principle it developes is in opposition to some of the vascular speculations of the day. — REV.

mental manifestation*; and he now takes occasion to condemn the manner in which opposition has been made in this country to the phrenological tenets. "The foundation of Gall's doctrines may (says Dr. C.) perhaps be admitted without absurdity. If, however," he continues, "we admit that there is a foundation in nature for them, I think it must also be admitted that they have been carried to an extravagant length, particularly by Gall; and the doctrines appear to me to have been injured by their own enthusiasm, and that of their disciples, and by the circumstance that the craniologists are by no means agreed among themselves, either as to the number or the locality of the organs for the manifestations of the mind." It appears, to our conception, that Dr. Cooke has remarked upon the tenets under notice precisely in the candid and philosophical spirit that ought to direct all our investigations upon disputed points. To oppose phrenology, from an apprehension of the consequences to which it may lead, or to ridicule its pretensions as visionary, and, *in limine*, absurd, or unworthy inquiry, is surely inconsistent with every principle of rectitude, and is calculated rather to injure than serve the purpose for which such kind of opposition is intended.

Having canvassed these several speculations, or rather presented to his readers an historical sketch of their nature and bearing, Dr. Cooke goes on to advert slightly to the opinions which have been broached regarding the minute and ultimate structure of the nervous system; he then reverts to "the deeper speculations and conjectures on its connexion with the thinking principle, the nature of this principle, its seat, and the mode of its action through the brain and nerves, in the production of sensation and motion." Of the manner, however, in which perception and thought are connected with organization, we are still, and ever must be quite as ignorant as the first Philosopher who started the problem; and the whole investigation, whether the thinking principle be material or spiritual, local or diffused, resulting from organization, or appended to an organic compound, resolves itself into a mere logomachy, and is, therefore, an idle and useless occupation. As to "the nature of the medium through which the mind acts, and is acted upon in sensation and voluntary motion;" or, in other words, what is the precise principle of nervous agency; this, although a

* The following is the passage from Laurentius which Dr. Cooke quotes: "*Universa Arabum schola mansiones multas in cerebro statuit, et singulas facultatibus singulas sedes assignat.*"

difficult, is a legitimate object of research; and Dr. Cooke very properly takes occasion to animadvert on the different conjectures that have been hazarded on the *quo modo* of sentient propagation. The notion of a particular fluid transmitted through hollow tubes, which this theory supposes the nerves to be, still has its abettors. Sir E. Home, however, is persuaded that the nerves do not consist of tubes conveying a fluid, but of fibres of a particular kind; and other Physiologists, with Le Gallois at their head, conceive, "that through the whole extent of the nerves there is a secretion of a particular principle, which, once produced, subsists by itself, after the entire cessation of circulation, just as in the brain and spinal marrow, but for a longer time." The galvanic theory, however, of nervous influence, is, in the present day, and in this country especially, the most popular; and Mr. Good has ventured upon the following assertion, in allusion to this rationale:—"It is almost reduced to a certainty, that this common aura (the electric or galvanic) constitutes the nervous fluid, and in man at least it should seem, therefore, to be secreted from the brain, and hence diffused over the body by the course of the nerves." Our readers have very recently been put in possession of Dr. Wilson Philip's arguments to substantiate this assumption; and we shall, therefore, at present say nothing further on the subject, than just to intimate that too great a freedom of generalizing appears to have been employed by philosophers, who have undertaken to prove the identity of nervous agency with electric impulse, and that many links are still wanting to form fully the chain of demonstrative evidence, or even legitimate deduction in favour of such identity.

Our author lastly adverts to the theories of perception in this preliminary dissertation on the nervous system, and canvasses those doctrines which, on the one hand, maintain, that the mind perceives objects directly; and those which, on the contrary, assume, that images of such objects must be impressed on the brain prior to, or rather as the cause of perception. This, like the controversy respecting the essence of the thinking principle itself, is both a nugatory and interminable dispute; and if we reject on this head the suggestions and speculations of Plato, Aristotle, Descartes, and Locke, and receive the assumptions of Reid, it is because the last-mentioned philosopher tells us, in the language of common sense, that we literally neither do nor can know any thing about the matter. All the questions which these speculations involve, important and sublime as they may appear, are mere exercises of the fancy; or, in the expressive language of

Voltaire, which Dr. Cooke, indeed, himself quotes : " They are the questions of the blind, who ask of others equally blind, What is light?"

We have thus attempted a pretty copious analysis of Dr. Cooke's introductory discourse, and we should now proceed in order to the contents of the volume itself: to do, however, either the volume or the subject any thing like justice, would demand much more space than we can in this general review allow, and we must, therefore, for the present, bid adieu to our author and his labours, with a full determination to return to them so soon as we shall resume our course of particular reviewing.

Mr. Wilson's lectures on the vascular system, &c.* we may conscientiously recommend to the medical and surgical Student, as containing a very neat and interesting summary of physiology, in respect to the blood, muscles, heart, blood-vessels, and absorbents. If we might venture to complain at all of this volume, on the score of omission, it would be that Mr. W. hardly, we think, goes sufficiently into the modern doctrines of the French school in particular, respecting absorption, independent of the lymphatic system. We do not mean to intimate that we are by any means unlimited converts to the principle of venous absorption in the way argued for by the theorists in question: we, at least, however, think they advance a great deal that is very strong against the lymphatic creed, which has been too indiscriminately perhaps received; and, at any rate, the opposition which has been set up against this creed is of too respectable a cast to be slurred over in silence. We might also have expected from Mr. Wilson something a little more in detail respecting the disputed point of the circulating agency. These omissions, however, allowing that they constitute defects in the volume before us, by no means at all balance against its merit and nature; and we are always to recollect, that the framer of an elementary work has to apprehend that in expanding he may become dry and unintelligible†.

Under the head of physiology we may, perhaps, venture to

* Lectures on the blood, and on the anatomy, physiology, and surgical pathology of the vascular system of the human body, delivered before the Royal College of Surgeons of London, in the summer of the year 1819. By James Wilson, F.R.S.

† We may take occasion to say, that the very plan and principle of the lectures at the College of Surgeons involve the lecturer in the difficulty alluded to. It appears to us that these lectures ought either to be fewer or more in number, so as to admit of either more concentration or more expansion.

introduce to the notice of our readers, the volume recently issued from the able pen of Dr. Haslam*; who, in our judgment, has treated the subject of mind exactly in that way by which alone abstract questions of this nature can be made either interesting or instructive. Instead of replying to the organic physiologists, if we may so term them, in the usual way of angry and nugatory objection; he has more properly and effectively applied himself to analytical and synthetic views of mental functions, and has inferred the immortality of man, not from the materials of his physical construction, but from that palpable difference between him and the inferior animals, that is evidenced in every circumstance connected with his moral and intellectual character. If we can find time and room, we shall afterwards notice the contents of this volume more at large; for the present we shall limit ourselves to a single extract from the concluding chapter:—

“The mental endowments and capacities which animals possess, have rendered them stationary; whatever the more docile and intelligent may have been compelled to learn, they do not appear to comprehend, and want the means to communicate; so that their contemporaries and descendants are unbenefited by the acquirement, and the attainment perishes with the individual. When brought into existence, the world is to them a recent creation, and bears no evidence of a former race, from archives or monuments that they can understand. The record of their ancestors has been discovered by man, in fossile preservation; but its characters are unintelligible to him. As they have not been endowed with the capacity to numerate, they can experience no solicitude for the past, nor apprehension for the future. Their recollection is not an act of the will, but an excitation by the object that originally produced it. In the grammar of animals, the present is the only tense, and to punish them for faults they had formerly committed would be equally absurd and tyrannical. The features of the human mind are very differently shaped, *and strongly indicate an ulterior destination.* Man possesses language, the instrument of thought, the vehicle of intelligible communication; and he is gifted with the hand to record the objects of his experience, to fabricate his contrivances, and to rear the durable monuments of his piety and splendour. Thus he is rapidly progressive; his mind becomes opulent from the intellectual treasures of his ancestors; and, in his turn, he bequeaths to posterity the legacy of wisdom. His comprehension of numbers, on which the nature of time is founded, enables him to revert to the transactions of distant ages, and to invest faded events with the freshness of immediate perception. He alone can embalm the past, and welcome the tidings of the future. Man alone is fitted to

* Sound Mind; or, Contributions to the Natural History and Physiology of the Human Intellect. By John Haslam, M.D.

covenant, although he may occasionally waver in the performance. His exalted capacities, his comprehension of the law, constitute his responsibility; for where the conditions of the compact are not understood, there can be no disobedience or delinquency."

Such, we repeat, are the weapons of warfare with which sceptical tenets can alone be successfully opposed; and there are very few who are able to wield these weapons with more dexterity and effect than the elegant writer from whose volume we have just quoted.

The works of Tupper and Combe; the one against, the other in favour of phrenological principles*, must not be passed by entirely unnoticed, although to go over again in detail the *pro* and *con* arguments on these principles, would be entirely inconsistent both with our inclinations and limits. The treatises are both ably written; and, but that there is too much of the spirit of *a priori* condemnation pervading Dr. Tupper's volume, we might recommend it as containing some very judicious reflections on moral liberty and mental alienation. It ought always, however, to be recollected, that Gall and Spurzheim go no further in their assumptions than *tendencies*; and who shall deny, whether he be a craniologist or not, that propensities of a widely different nature are interwoven with the very fibre and texture of the material constructions of different individuals. Every school boy will be ready with the Socratic illustration of this fact.

In Combe's defence of the system, we have found a good deal of ingenuity of argumentation employed, to do away the metaphysical objections which have been advanced against the speculations of the phrenologist; but we cannot help still thinking that the distinction, and separation, and innateness of faculty which the doctrines of Gall assume, are inconsistent with that totality, as it were, by which the functions of mind are regulated, and intellectual phenomena displayed. We are told, for instance, that there is a particular part of the brain destined for the manifestation of that faculty by which the acquisition of language is made a much more easy business than it is in another who has an inferior quantity of such particular portion of the cerebral mass; and as an illustration of this principle, we are referred to the fact, that an individual, having long given his atten-

* An Inquiry into Dr. Gall's System concerning Innate Dispositions, the Physiology of the Brain, and Materialism, Fatalism, and Moral Liberty, &c. By J. P. Tupper, M.D. — Essays on Phrenology; or, an Inquiry into the Principles and Utility of the System of Drs. Gall and Spurzheim, &c. By G. Combe.

tion to the pursuit of a language, and having thereby become fatigued and exhausted, will pass refreshed and comparatively vigorous to intellectual researches of a different order — say physical science: but this is not a true statement of the case; for it would not be language in the abstract, but the particular one to which the individual had applied, that had occasioned the exhausted state; and a person thus circumstanced would transfer his faculty of attention to *another* language, with quite as much facility and freshness as to any department of natural philosophy; and, therefore, if we allow that there is an organ of language, we must admit that each and every language has its respective organ; a proposition involving a manifest absurdity. After all, however, craniology must be tried by the test of cranioscopy; and if a candid and *fearless* examination of the heads of individuals prove a sameness of construction with a sameness of intellectual and moral habit, the doctrine must be received for as much as it is worth, although its admission may run counter to our usual habits of accounting for the phenomena of mind.

“The speculative hints” of the author of “Physiological Fragments*,” soar, we must confess, beyond the reach of our speculative faculties. This writer intimates, that a vital power appertains even to minerals; “since,” he says, “the particles of unorganized bodies become vitalized when subject to infusion, it would lead us to infer, that chemical changes may partly depend upon this vital agency.” Here we have the *materia vitæ diffusa* doctrine with a witness. Dr. Pultney, the celebrated botanist, is said to have expressed often a fear that his incision of vegetables might partake of the same character of cruelty which attaches itself to experiments upon animals; but, according to Mr. Bywater, the very earth we crush under our feet may have as much cause of complaint as “the poor beetle we tread on.”

Mr. Pring, in a long and laboured dissertation†, has argued for the atomic doctrine of “formative life,” and has lost himself, as it appears to us, in the wildness of conjectural theory, with respect to the origin and essence of vital properties. The Epicurean notions of this author may be sufficiently gathered from the following enunciations:—

“Creation is another word for production. This world, it is said, was produced at a certain period, and until then it did not exist.

* Physiological Fragments; or, Sketches on Various Subjects intimately connected with the Study of Physiology. By John Bywater.

† General Indications which relate to the Laws of the Organic Life. By Daniel Pring.

Did then the intelligent Being, with whom this creation originated, supply the *materials* of the world? If he did, then the materials must have been included in him, must have been identified with him; and the world (as an effect must exist in its elements, or in the sources from which it is supplied, although in them its form is, perhaps, not conspicuous) must have been casual with its Creator, and, consequently, could not be produced *de novo*."

Such are the wanderings of men's imagination when they give free scope to conjecture, and so impossible is it to conceive of the origin of time, place, and circumstance, by unassisted reason! In the physiological portion, however, of Mr. Pring's volume, will be found some scattered remarks, from which much information may be derived: and the very sceptical turn of the author's mind proves, in this case, useful; since we find every where an extreme caution in admitting assumed data from the mere *ipse dixit* of others. We may probably again take up this book, with a view to analyse that part of its contents which more particularly treats of vital functions. For the present we shall merely adduce the following illustration of what has just been advanced as to the determination of the author of it to think and judge for himself.

"The spleen has been considered ingeniously as a mere reservoir of blood, subservient to the functions of the stomach. The theory alluded to is this: when the stomach is distended by food, it compresses the soft texture of the spleen, diminishing the quantity of blood which would otherwise pass to the splenic arterial ramification, and thereby determining a greater quantity to the stomach, through the vasa brevia and gastro-epiploica sinistra; branches given off to the stomach in the course of the splenic artery to the spleen. The theory further assumes, that the stomach receives an augmented supply of blood at the times when it is most required for the purposes of digestion.

"That such an effect may take place from this arrangement in some degree, cannot be denied; at the same time it may be suggested, that the pressure which the stomach may, under any circumstances, be supposed to exert, is scarcely sufficient to diminish the area of an artery of the smallest size, when blood is forcibly impelled through it with the usual velocity of the circulation. It may be suggested, that the momentum of the blood circulating in the spleen presents a considerable resistance to any cause of compression, and that the resistance is likely to be the more effectual when the *compressing substance* is, from its texture and configuration (that of a membranous cavity *partially* occupied by *fluid contents*), even more easily compressible than the spleen itself."

We cannot compliment Mr. Pring upon the purity of his style. His phraseology is indeed often exceedingly awkward, and his sentences involved and obscure.

Here we must again stop, in order to introduce a subject which, under the present circumstances of the times, is paramount to all others. Almost the whole of our next Number will be occupied with the retrospective matter which still lies before us, so that our readers must excuse, for once, a considerable abridgment of the "Original Correspondence" department.

An Account of the Varioloid Epidemic, which has lately prevailed in Edinburgh and other Parts of Scotland; with Observations on the Identity of Chicken-Pox with modified Small-Pox: in a Letter to Sir JAMES M'GRIGOR, Director General of the Army Medical Department, &c. &c. By JOHN THOMSON, M.D., F.R.S.E., Surgeon to the Forces, Honorary Member of the Royal Medical Society of Edinburgh, Professor of Surgery to the Royal College of Surgeons, Regius Professor of Military Surgery in the University, and Consulting Physician to the Edinburgh New Town Dispensary. London, Longman and Co. 1820. pp. 322.

THE question agitated in this volume appears to us to be of such importance, that we embrace the very earliest opportunity of introducing it to the notice of our readers. It is one which, for the last two years, has attracted a great share of attention from our brethren of the North; but the controversy has hitherto been almost exclusively carried on through the medium of a periodical journal. It now, however, comes before the public in the very tangible shape of a bulky octavo, calling for that candid but severe investigation, which we confess we are nothing loath to afford it. The comparative indifference with which this great question has been viewed in England has always surprised us; but we shall be surprised still more, if the perusal of this volume does not awaken us to a due sense of its importance, and direct our attention, more closely than has yet been done, to many interesting phenomena which are every day passing before our eyes. It does not require any great skill in the occult science to foresee an abundant harvest of controversial writing in this field of inquiry. We have reason to know that another volume on the same subject will speedily make its appearance, and in due season we shall probably be tempted to enter the lists, and break a lance on the occasion ourselves; but, for the present, our sole aim is to give our readers a general

view of the question, to lay before them a sketch of the pathological difficulties which it involves, and a summary of the arguments employed by Dr. Thomson in defence of that hypothesis which he supports in the volume before us. Variola and varioloid diseases will probably, ere long, usurp the place which syphilis and pseudo-syphilis have so long maintained; and, from the specimen now presented to us, we have little hesitation in saying, that this new subject of investigation is of equal, if not even of superior interest, and that, like its predecessor, it may ultimately be the means of establishing a pathological doctrine, which we shall with difficulty reconcile with the prejudices of our earlier years.

“There are periods, (as the author observes), in the progress of every natural science, in which it becomes necessary to revise the facts and hypotheses of which it consists: and surely, if ever there was a time when it was proper to reconsider the facts which have been ascertained, and the hypotheses that remain to be verified respecting varioloid diseases, the present is such. The confidence of the public in the salutary powers of cow-pock inoculation, has been, in some degree, shaken by the very general prevalence of small-pox; and medical Practitioners still continue to differ widely in their opinions with regard to the nature and causes of those varioloid diseases, which in so many different places have occurred in persons who have undergone the process of vaccination.”—p. 2.

It is a very certain, though a very melancholy fact, that small-pox is now prevailing to a greater or less degree in every part of this island, twenty-one years after the promulgation of the great discovery of Jenner. The extent to which it has prevailed in London, during the last summer, has been truly alarming, and we fear that its mortality has been proportionally great. The prospect, therefore, of exterminating the small-pox, so fondly indulged by some in the pure spirit of benevolence, and cherished by others as an excuse for neglecting the study of variola and varioloid diseases, appears, if we may rely upon our own opportunities of observation, to be as distant as ever. With all our good wishes, we yet cannot conceal our suspicion that this hope is visionary, and that the small-pox will still continue to show itself occasionally among others of the “painful family of death,” and that its study is still an indispensable part of medical education. Of this, at least, we are quite sure, that the cause of vaccination is too firmly established to suffer from such an investigation as that which Dr. Thomson has gone into in the present volume. We are inclined indeed to believe with him, that it will serve to establish more firmly the credit of vaccination. Nothing, we think, can be more prejudicial to it than the uncertainty which prevails in the minds

of medical men at the time we are writing, regarding the nature and causes of varioloid diseases; and we hope, therefore, to stand excused with our readers, when we assure them, that as we take a deep interest in the subject, so we shall be careful to lay before them, as early as possible, an analysis of any works which may appear relating to it, and a detailed statement of the principal arguments which bear upon the question.

It is certainly a very pleasing reflection, that seeing, as we all must, or reading, as we all may, of so many cases of small-pox, or what is considered to be small-pox, after vaccination, the march of cow-pock inoculation should be silently, yet progressively advancing. Having had access, during the last summer, to one of the most extensive vaccine institutions in London, we are happy in being able to testify to the increasing confidence of the lower orders in the efficacy of vaccination; and this at a time too when a varioloid epidemic was prevailing in almost all parts of the town. We would urge this point in the outset of our investigation with the more earnestness, lest it should be imagined that it might have the effect, even though in a very limited degree, of checking that beneficial practice. The question which the occurrence of a varioloid epidemic in Scotland, and in other parts of the world, has given rise to, has, in fact, much less to do with an estimate of the value of cow-pock inoculation than many of our readers might suppose. It embraces indeed this point, but it equally concerns several others, which, though of less general interest, are nevertheless important in a scientific view; more particularly the pathology of small-pox and chicken-pox, and several of the general laws of morbid poisons.

It is difficult to give a general character of the work before us. The Profession at large are certainly much indebted to Dr. Thomson for the pains he has bestowed in investigating the subject, and for the immense mass of facts which he has accumulated. We lay aside for the present all consideration of the merits or demerits of the particular hypothesis which he espouses, and must frankly confess, that the author has shown himself to be an indefatigable observer, and a candid reasoner. He publishes his cases in detail, and enables the reader to judge for himself. He throws no veil over the statement of those who differ from him in opinion, but places their arguments and objections in a prominent part of his volume, and either allows them their full weight, or urges his reasons in reply. But it cannot be denied that the book is a very confused one. It is difficult indeed to trace any arrangement whatever in its parts, and it bears

altogether too many traces of the hurry in which it was written. We ought not, perhaps, to find fault with this, as, from the author's important avocations, we must probably either have had it as it is, or not at all; but we mention the circumstance, in order to prepare those who may take up the work, for the frequent obscurities and endless repetitions which they will meet with. The volume is one-almost entirely of a controversial nature. The principal subjects of which it treats may be stated in a few words; but there is, alas! neither index nor table of contents to lighten the labour of analysis.

The author begins with a description of the varioloid epidemic, as he himself observed it in Edinburgh, Lanark, and other places, between June 1818 and December 1819. He then states at length the opinion he has been led to entertain regarding its nature, and adduces various arguments in support of it. The largest share of the volume is dedicated to a detailed exposition of the objections urged by Mr. Bryce, Dr. Alison, and Dr. Abercrombie, against his hypothesis, and to a minute refutation of each. This is certainly the heaviest part of a heavy volume, the important matter of which might have been comprised in one third part of the space. Next follow the details of a number of the most recent cases of the epidemic which have occurred in Edinburgh, under the author's immediate inspection, viz. between the months of June and September 1819. The second part of the work contains a number of very interesting communications relative to the varioloid disease from various Practitioners in Scotland. We would particularly direct the attention of our readers to those of Dr. Mudie, Mr. Gibson, and Dr. Turner.

An Appendix contains some valuable papers on the varioloid disease, extracted from the Edinburgh Medical and Surgical Journal, and two reports on the same subject from continental Practitioners.

Such is the arrangement adopted by the author; but as our object is chiefly to make our readers acquainted with the general scope of his argument, we shall content ourselves with this notice, and follow, in our subsequent remarks, an arrangement of our own; gathering, as we best can, the author's opinion upon the several topics that may come before us.

It will be right to bear in mind, that, under the term "*varioloid epidemic*," the author includes not only the cases of disease which exhibited a varioloid character, but those also of the purest small-pox. His opportunities of observing the disease have certainly been very great. Since June 1818 he has seen 556 cases, which he separates into three classes.

The first includes those who had neither passed through small-pox nor cow-pox; the second, those who had previously passed through small-pox; and the third, the most numerous, comprises those who had undergone the process of vaccination: the numbers being

205 of the first class,

41 of the second,

310 of the third.

Total....556

In those who had neither passed through cow-pox nor small-pox, the epidemic assumed the form of common variola. The author attempts to establish some fine-drawn distinctions among these cases, calling them the pustular, the vesicular, and the vesiculo-pustular varieties; but we lay no stress upon this refinement. Of the 205 persons included in this class, 50 died; a proportion of deaths of about one in four, and affording an undoubted proof of the malignant nature of the epidemic in its unmodified state. When it attacked those who had previously passed through regular small-pox, the eruption varied considerably, both in appearance and duration. Sometimes it resembled chicken-pox, and sometimes the distinct small-pox; and it came to its height at different periods, from the fourth to the twelfth day. The author states*, "that nothing which has occurred in the progress of the present epidemic has been to him a matter of such surprise as the number of persons who have been affected by small-pox for the second time. Thirty well-authenticated instances have come to his notice, besides the 41 already mentioned. No doubt about the fact can be entertained, for the cases of secondary small-pox were observed in circumstances in which it was impossible to suppose them to be produced otherwise than by the contagion of natural or of modified small-pox; and they again were observed, in their turn, to produce distinct, coherent, and confluent small-pox. The cases were seen, and admitted to be such by other Practitioners. In some the eruption manifested a tendency to become confluent, so as to cause considerable alarm for the safety of the patient. Three of them are reported to have died; but some doubts may be entertained in two of these, as to the precise nature of the primary attack.

In those who had undergone the process of vaccination, the character of the eruptive fever, and of the eruption, exhibited considerable variety. The former was generally

* Page 51.

severe, of from one to four days' duration. A roseolous rash frequently preceded the appearance of the latter. The author describes at great length, and, as far as our own observations extend, with great precision, the leading varieties of varioloid eruptions. He tells us that they were sometimes vesicular during their whole course, at other times as decidedly pustular; that an eruption too was often observed, which resembled chicken-pox in its commencement, and which assumed, in its progress, the appearances characteristic of small-pox. The vesicle, or pustule, is generally surrounded by more or less areola, depending, as the author believes, upon the peculiar texture of the skin in the individual affected. One of the most common forms which the epidemic assumed in this class of persons, corresponds exactly with what was long ago described under the title of horn-pock. The eruption has almost always been observed to come out in successive crops, and to arrive at its height, on the face about the fifth, and on the extremities about the eighth or ninth day. We do not, at present, enter further into the characters of *modified* small-pox, as the disease is very properly termed, because we shall frequently be obliged to recur to the subject, when its minuter shades may, with more propriety, be detailed. That it is really a disease originating in variolous contagion, and therefore entitled to the appellation of modified small-pox, is proved beyond the possibility of doubt. In its severer forms it is capable of communicating the *casual* small-pox; and the *mildest* varieties of it will produce genuine small-pox in the unprotected by inoculation. By a passage in page 208, the author does not seem to be aware of this, but we have no doubt of it ourselves; and the facts and observations upon which the opinion has been founded shall appear in our next Number. As far as our reading extends, this important practical point has never before been explicitly avowed to this extent.

The great diversities which occurred in the local and constitutional symptoms of the epidemic, had at first been always explained on the supposition of a specific chicken-pock contagion operating in conjunction with that of small-pox; but the author, dissatisfied with it, was some time ago led to suspect that this piece of pathology was unfounded, and that *chicken-pox, modified and natural small-pox, originate in one and the same contagion*. This conjecture gained strength in proportion as the author continued his researches, and he now advances it with very considerable confidence. The question is as yet very far from being settled, but it would be in vain to deny that Dr. Thomson's

arguments in favour of his hypothesis are very powerful. He has made, however, but two converts to his opinion among his northern brethren, for the third correspondent who supports him (Dr. Mudie, of St. Andrew's) has some claims to be considered in a different light, the same idea having previously occurred to himself. It is, at best, but the revival of the old doctrine, which Dr. Heberden was supposed to have had great merit in subverting. It will be curious if it shall hereafter appear that the terms *variolaë pusillæ*, and *variolaë vaccinaë*, by which chicken-pox and cow-pox were originally designated, are strictly legitimate.

Dr. Thomson urges, in favour of his hypothesis,

1. That the mildest and most strictly vesicular eruptions have occurred in situations where the patients were exposed to the contagion of natural or of modified small-pox, and where, in point of exposure and time, they could only be referred to the operation of such a contagion.

2. That in situations where the varicelloid cases were observed to occur first, small-pox has afterwards appeared, precisely at the period when they might have been expected, on the supposition of the varicelloid variety being capable of giving rise to the other forms of small-pox.

3. That of the 205 individuals who had not previously passed through either small-pox or cow-pox, and in whom the epidemic took the form of pure variola, two only had been previously affected by chicken-pox.

4. That no individual fell under his observation, who, having passed through the present varioloid epidemic in the form of small-pox, was subsequently attacked with it in the form of chicken-pox.

5. That varicella, as described by Dr. Heberden, (a disease capable of being propagated by inoculation, and in danger of being confounded with small-pox,) is not acknowledged to exist even by the most strenuous supporters of the old doctrine; and that, therefore, the probability is very strong, that Dr. Heberden included, in his notion of varicella, many of those diseases which we now call horn-pock, and which are *acknowledged* to be of variolous origin.

6. That his opponents differ in the characters which they assign to that vesicular disease, uncommunicable by inoculation, which they now denominate varicella, and believe to arise from a specific contagion different from that of variola.

7. That after the strictest attention, and with all the assistance which his professional brethren afforded him, he was unable to perceive those diagnostic marks between chicken-pox and modified small-pox, upon which they fully relied, and that the impossibility of distinguishing them was *tacitly*

acknowledged by others, in the different opinions given by different Practitioners upon an individual case, and in the necessity they sometimes found of altering, in the course of the disease, the opinion which they at first entertained of its nature.

Dr. Abercrombie urges, in opposition to Dr. Thomson,

1. That a remarkable difference exists between the characters of the vesicular disease of Mr. Bryce, (the new varicella,) and the eruption usually called horn-pock.

2. That he has often seen small-pox epidemic, without having observed mixed with it any examples of the *vesicular disease* of Mr. Bryce.

3. That he has never been able to trace any example of the latter to the contagion of small-pox.

4. That he has seen the vesicular disease epidemic, without observing, among the cases of it, any example that had the characters of small-pox.

5. That he could never trace a case that in its characters resembled small-pox, to the contagion of the vesicular disease.

6. That he has seen the vesicular disease in its progress affecting the three classes of individuals formerly alluded to, and that, in all cases, it exhibited the same characters; in none, however, approaching to the characters of small-pox.

7. That the vesicular disease exhibits the same phenomena in the vaccinated and unvaccinated, and that vaccination advances after its occurrence with perfect regularity, a circumstance which never happens after small-pox.

8. That no case has come within his knowledge where the vesicular disease was communicated by inoculation.

9. That the occurrence of small-pox does not prevent or modify the vesicular disease, and *vice versa*.

Upon the whole, Dr. Abercrombie acknowledges himself satisfied with the commonly received opinion in regard to variola and varicella; and taking into view the whole phenomena of the two diseases, finds nothing calculated to establish the doctrine that they proceed from the same contagion. These objections appear, at first sight, to be very forcible, and they certainly must be allowed to have great weight; but Dr. Thomson's replies are not less so; and the general impression produced upon us by the work was, that the arguments *pro* and *con* are very nearly balanced, and that further investigation is necessary before the question can be finally set at rest. Our readers cannot fail to have perceived that one point of great importance is now conceded, viz. the character of varicella as given by Heberden and Willan. The vesicular disease of the Edinburgh doctors,

as distinguished from the chicken-pox of Dr. Heberden, is very properly characterized by the author as a recent discovery, and we have never heard that it has been acknowledged in this or other countries.

The diagnostic marks of *genuine* varicella, are, according to Dr. Abercrombie, as follows:—1. The eruption being distinctly vesicular from the earliest period. 2. The vesicle, when punctured early, falling completely to the level of the surrounding integuments. 3. The crusts being yellowish, scaly, and irregular, and lying flat upon the surface of the body. If the eruption exhibits, in its earliest stages, the appearance of a solid tumour; if, after discharging the contents of the vesicle about the third day, a firm tubercle be found beneath it; if, lastly, the crusts are brown, compact, and defined, of a clear horny smoothness, and each elevated above the surface of the body, upon a firm tubercular base, the disease, though vesicular, is not varicella, but small-pox in some of its modifications*. All this may be very correct; but Dr. Abercrombie must allow us to say, that it is a novel doctrine, which cannot be admitted without further investigation. Even though such a disease did exist, we think it very questionable indeed, how far Dr. Abercrombie or Mr. Bryce are warranted in saying that it proceeds from a *specific contagion*. Many circumstances have concurred to induce us to believe that a disease of the kind described by these gentlemen, may arise from common causes; and though Dr. Abercrombie states (page 187) with confidence, that he has seen such a vesicular disease prevailing epidemically, he unfortunately omits to make any reference to the particular time and place where he had observed it; and it is impossible, therefore, to verify his statement by a comparison with the observations of other Practitioners.

Dr. Thomson considers chicken-pox to be a very mild vesicular small-pox, but acknowledges that this view of the question is still involved in much obscurity. He confesses, for example (page 50), that it must be left for future inquiry to determine whether, having passed through natural small-pox in the varicelloid form, be sufficient to protect the constitution, whether wholly or partially, against a future attack of the disease—whether the matter contained in the vesicles be always secreted in a state capable of producing small-pox by inoculation; (page 88)—how far the cow-pock vesicle goes through its regular progress in those who have had the vesicular eruption,—and (page 89) what proportion of those who have gone through the small-pox, either in the natural

* Pages 186, 187.

or artificial way, are by this rendered unsusceptible of regular cow-pock inoculation. These are all important questions in the pathology of the morbid poisons, hitherto, we believe, uninvestigated. Dr. Thomson freely allows, (page 206) that Dr. Abercrombie's objection (No. 8 in our list,) affords some pretext for believing that one of the forms of varioloid disease has been produced by a contagion, different from that which is allowed to have given rise to all the others; but he argues that the fact itself (the impossibility of communicating the true varicella by inoculation,) is by no means clearly ascertained; that even if it were ascertained, it would not be decisive against his hypothesis, because it is more probable that nature should occasionally secrete matter in varioloid diseases, in a state incapable of producing corresponding eruptions by inoculation, than that the varieties of these diseases should depend on the operation of several specific contagions*. The difficulties in which the hypothesis of a double contagion are involved, are frequently referred to by the author, and they are nowhere more forcibly urged than in the following paragraph:—

“ I must now leave it for those who maintain that the present varioloid epidemic has been produced by the operation of two separate contagions, to trace the sources from which these different contagions have been derived; to ascertain the points in which they agree and differ in the laws of their communication; to inform us why, in the present epidemic, chicken-pox should always have appeared at the same time, and in the same places, with small-pox? Why chicken-pox should have attacked so many of the vaccinated, and so few of the unvaccinated? Why no one of those who have passed through the epidemic, in the form of small-pox, should have been attacked by the chicken-pox? Why but two of those who have had the vesicular eruption should afterwards have had an attack of small-pox? And why the mild vesicular eruption should, any more than the malignant, require for its production a contagion different from that which produces all the other varieties of primary, of secondary, and of modified small-pox? The careful examination of above six hundred cases of the varioloid disease, in every diversity of situation in which it can be supposed to occur, leads me to believe that one might, with exact parity of reason, and equal hope of success, attempt to prove, that the mild varieties of typhus fever, of scarlatina, and of measles, contagious diseases which have all prevailed during the progress of the present epidemic, have been produced by contagions specifically different from those which have given rise to the other more severe varieties of these diseases, as to attempt to show that the mild vesicular form of the varioloid epi-

demic, which has lately prevailed in Scotland, has been the effect of a contagion different from that which has produced the other more severe forms of small-pox."

If we have made ourselves intelligible in the preceding observations, it will now be obvious that the varioloid controversy embraces a much wider field of inquiry than merely establishing the merits of vaccination. It hinges upon the more important question of the general susceptibility of the human constitution to the contagion of small-pox, and the various modifications of which that contagion is susceptible. We are, at present, says the author, acquainted with three different varieties of modified small-pox, viz. by inoculation, by previous small-pox, by vaccination; (we do not see why there may not be others;) but to ascertain fully in what respects these three agree with, or differ from each other, will require a continued series of observations of a nature very different from any now upon record*. The point, however, of most general interest which the question involves, is, undoubtedly, the efficacy of vaccination: but this, which may be considered as a collateral branch of the inquiry, is but very cursorily alluded to in the volume before us. We think it better, therefore, to defer it to the next Number, when we may find an opportunity of introducing the subject in the form of some remarks on a paper lately published by Sir Gilbert Blane, in the Tenth Volume of the *Medico-Chirurgical Transactions*. We cannot, however, close this article without expressing our cordial concurrence in an opinion advanced by Mr. Bryce†, that the occurrence of eruptive attacks after vaccination will never be satisfactorily explained on the principles which have been hitherto brought forward or sanctioned by persons of high authority in this branch of medical practice; that neither imperfect vaccination, nor the deterioration of the virus, nor an insufficiency of perfect vesicles, are adequate causes; in short, that the phenomenon is only to be explained by a consideration of the general laws by which the influence of the variolous poison upon the human constitution is regulated. We know no opinion to which so much authority is deservedly attached, in matters of this kind, as that of Mr. Bryce; and we therefore indulge the hope, that this candid and scientific avowal on the part of such a man, will meet with the attention which it merits.

We have great pleasure, too, in giving increased circulation to the following opinions of two gentlemen, the author,

* Page 201.

† Page 61.

and Mr. Gibson, Surgeon, of New Lanark, who have probably seen more cases of small-pox after vaccination, than any other Practitioners in the island.

Mr. Gibson says, (page 253) —

“ That the occurrence of modified small-pox has had the very best effect in completely establishing the credit of vaccination in this quarter. The anxiety now displayed to have the operation performed early is extreme, even by some of those who formerly were the most violent opposers of the practice. The short, mild, and often trifling eruptive ailment, which has succeeded, in the greater number of cases, to vaccination, when compared with the severe, protracted, and frequently loathsome disease which has occurred where this valuable precaution has been neglected, is a most convincing and highly favourable proof to all of the great efficacy of cow-pock in modifying small-pox.”

Dr. Thomson thus expresses himself, (page 49) : —

“ It has been impossible to see the general mildness of the varioloid epidemic in those who had undergone the process of vaccination, and the severity, malignity, and fatality of the same disease in the unvaccinated, and not to be convinced of the great and salutary powers of cow-pock in modifying small-pox, in those who were afterwards affected with this disease. Proofs cannot be imagined more convincing and satisfactory of the efficacy of the practice of vaccination, and of the incalculable benefits bestowed upon mankind by its discoverer, than those I have had the pleasure of witnessing. It has been very agreeable, also, to observe, that the terrors at first excited by the occurrence of this varioloid epidemic, in the families of those who had undergone cow-pock inoculation, have gradually given way in the progress of the disease; and that the comparison of small-pox, in their modified and unmodified forms, has often forced a conviction of the advantages of cow-pock inoculation upon the minds even of the most ignorant and prejudiced, and induced them to seek protection for themselves and their offspring in a practice which they had formerly neglected or despised.”

PART III.

SELECTIONS.

Observations on the Medico-Chemical Treatment of Calculous Disorders. By W. THOMAS BRANDE, Sec. R.S., &c.

SECTION III.—*On Calculi of the Bladder; their Nature and Treatment.*

(Continued from page 33.)

THE last division of this subject relates to calculi of the urinary bladder: their history, as connected with my present

object, may be detailed under the heads of their composition and formation, and their symptoms and treatment.

The chemical constituents of these calculi have already been enumerated, and their leading characters pointed out: they are,—uric acid, ammonia-magnesian phosphate, phosphate of lime, oxalate of lime, cystic oxide; but their formation will require a more extended inquiry.

From what has been formerly stated, when speaking of kidney calculi, it will appear obvious that the most common proximate cause of cystic calculus is the lodgment of a small uric calculus in the bladder; since the majority of kidney calculi are formed of that substance.

Such a nucleus being lodged in the bladder, it rarely happens that it remains for any time without undergoing an increase of bulk, the nature of which will chiefly depend upon the state of the urine, which, if charged with uric acid, will deposit it in layers, thus causing the growth of the calculus in that substance; or if there be no excess of uric acid, the deposition will be of the phosphates. Accordingly, bladder calculi are sometimes almost entirely composed of uric acid, while at others the nucleus only is of uric acid, and the bulk of the stone consists of the triple phosphate of ammonia and magnesia, and phosphate of lime, forming the mixture which Dr. Wollaston, in his valuable paper, has termed *fusible calculus*, (Phil. Trans. 1797,) and in which the ammonia-magnesian salt generally predominates.

It deserves notice, as throwing considerable light upon the formation and growth of cystic calculi, that the urine has at all times a tendency to deposit the above-mentioned phosphate upon any body over which it passes: drains by which urine is carried off from the streets, &c., are often incrustated with its regular crystals: and in cases where extraneous bodies have got into the bladder, they have often, in a very short time, become considerably enlarged by the deposition of the same substance. If, from any cause, the urine becomes in the slightest degree putrid, ammonia is evolved, and the deposition of the phosphates much accelerated and increased. These, as we shall afterwards show, are facts that require always to be borne in mind, as influencing the mode of treatment to be adopted in respect to bladder calculi in general.

The appearance of the triple phosphate is more or less crystalline, and the calculi incrustated with it are generally greyish-white. Strongly heated before the blow-pipe, this substance evolves ammonia, and with much difficulty enters into an imperfect fusion: if, however, phosphate of lime be present, it more readily undergoes fusion: hence the propriety

of the term *fusible calculus* applied to the mixture of the two phosphates.

Calculi, composed entirely of ammonia-magnesian phosphate, are very rare: I have seen two; they were crystallized upon the surface, and their fracture was somewhat foliated. It is also comparatively rare in its pure state, as an incrustation: I have seen it upon an uric nucleus, in a very large calculus in the possession of Mr. Thomas.

The fusible calculus is always more friable than the triple; it is generally white, and often much resembles chalk in texture and appearance; it often breaks into layers, and exhibits a glittering appearance when broken, in consequence of the crystals of triple phosphate that have formed in its interstices.

The analysis of fusible calculus is perhaps best performed by distilled vinegar, which, when gently heated, dissolves the ammonio-magnesian phosphate, but not the phosphate of lime, which may be taken up by muriatic acid; and if any uric acid were present it remains as the ultimate residuum, and may be recognised by solubility in caustic potassa, &c. (page 67). Or the uric acid may, in the first instance, be separated by solution of caustic potassa, which also expels the ammonia, but has no action on the other ingredients of the calculus.

Calculi, or layers of calculi, composed entirely of phosphate of lime, were first described by Dr. Wollaston under the name of *bone-earth calculi*; their surface is generally pale brown, smooth, and, when sawed through, they are found of a laminated texture; and separate easily into concentric crusts. Dr. Wollaston also notices an appearance which I have often remarked, that of each lamina being striated in a direction perpendicular to the surface, as from an assemblage of crystalline fibres. This calculus is of very difficult fusion. It is soluble in muriatic acid, and ammonia precipitates phosphate of lime from this solution.

The aspect and chemical characters of the uric calculus have already been adverted to. Their texture, when formed in the bladder, is generally laminated; and when cut into halves, a distinct nucleus of uric acid is almost always perceptible. Their exterior is generally smoother than that of other calculi, excepting those of phosphate of lime.

It rarely, and perhaps never happens, that a bladder calculus consists of any of the above substances *perfectly* pure. Traces of the phosphates are discoverable in the uric calculus, and of uric acid in those composed of the phosphates, and the mode of analysis has already been pointed out.

It is, however, a common circumstance to find two or more

of the above substances in layers distinct from each other. Uric calculi, incrustated with the phosphates, are of very frequent occurrence; they are, indeed, the most common of all calculi. Sometimes the nucleus only is uric, the bulk of the calculus being of the phosphates; at other times a comparatively large uric calculus is incrustated with a thin coat of the phosphates; but I have never yet seen a bladder calculus with a well defined nucleus of the phosphates enveloped in uric acid.

Besides the calculi composed of uric acid and of the phosphates, two other substances have been mentioned as belonging to this formation, oxalate of lime, and cystic oxide.

The properties of oxalate of lime have been described in speaking of it as of kidney origin, but its appearance when concreting into calculi in the bladder is peculiar; their exterior is rough and tuberculated, and their colour deep reddish brown, so that they have been termed *mulberry calculi*. Dr. Marcet (*Essay*, p. 78) has described a variety of the oxalate of lime calculus not exceeding the size of a pea, of a pale brown colour and crystalline texture, of which he has seen three specimens. The superficial crystals were very flat octoedrons.

The nuclei of these calculi are generally oxalic, and of renal origin, but uric nuclei enveloped in the oxalate also occur; they are likewise not very unfrequently found enveloped by the fusible calculus. I have in my possession a calculus of which the nucleus is uric, surrounded by oxalate and phosphate of lime, and triple phosphate, each in a distinct layer; and Dr. Marcet has depicted a very analogous specimen. (*Essay*, Plate VIII. fig. 8).

The cystic calculus is rare, compared with the other varieties. In appearance it most resembles the triple phosphate; but it is somewhat tough when cut, and has a peculiar greasy lustre. It is usually of a pale fawn colour, bordering upon straw yellow, and of an irregularly crystalline texture*.

* Dr. Marcet, in his *Essay on Calculi*, has mentioned two non-descript substances forming concretions in the bladder. One of these he has termed Xanthic oxide, from the yellow-coloured compound which it produces when acted on by nitric acid; it is more soluble in water than uric acid, and is distinguished from cystic oxide by its inferior solubility in acids.

The other is called a fibrinous calculus, and appeared to consist of hardened albuminous matter.

I once met with a calculus having a nucleus of albuminous matter, probably analogous to that described by Dr. Marcet; the specimen I gave to Mr. Wilson, and is, I believe, preserved in the Museum in Windmill Street. I attributed the origin of this stone

The calculi which have now been described may all be considered as of renal origin, that is, as formed upon nuclei that have passed from the kidneys into the bladder, where they have lodged and increased in bulk, that increase depending at times upon a morbid state of urine, and at times being the simple consequences of an extraneous substance lodged in the urinary passages: in the former case it is uric acid, or oxalate of lime, or cystic oxide; and in the latter, generally speaking, phosphate of lime, or ammonio-magnesian phosphate, or the mixed fusible phosphate.

Independent, however, of the ordinary disposition of the urine in its healthy state to deposit the phosphates upon any extraneous matter in the passages, it often acquires a greatly increased tendency to do so in consequence of general disease or local injury. There are, as has already been stated, particular states of stomach and bowels, or of the general health, that favour the formation of the phosphates: local injury of the spine produces an alkaline urine; and when, from any cause, such as stricture, or diseased prostate gland, or calculus, the bladder does not quite empty itself, the remaining portion of urine is very apt to undergo a slight decomposition, in which case it becomes ammoniacal, and more or less of the phosphates will, of course, be thrown down. This accounts for the circumstance of those calculi, which have attained a very large size in the bladder, consisting chiefly of the phosphates; and shows why a similar deposition is often formed upon bougies, or any other extraneous body; why uric nuclei are so often incrustated by phosphates; and why, in some cases of diseased kidney, a similar deposition has often gone to a great extent.

An enlargement of the prostate gland is not only favourable to the increase of the size of a calculus, for the reason which has just been adverted to, but in some instances becomes the cause of the formation of a stone, quite independent of any mischief in the kidneys, or disordered secretion of urine. "The bladder never being completely emptied, the dregs of the urine, if I may be allowed the expression, being never evacuated, a calculus, formed on a nucleus of the ammonio-magnesian phosphate and mucus is produced, when it would not have been produced under other circumstances. This species of stone, or a stone upon such a nucleus, can only

to a clot of blood having been retained in the bladder during the voiding of a large quantity of uric gravel, which had produced copious hæmorrhage; but I do not think that calculi can often result from such a cause, in consequence of the facility with which any coagula of blood are generally softened and voided.

be produced where the bladder is unable to empty itself; it may therefore be arranged among the consequences of the enlargement of the middle lobe of the prostate gland." (Home on the Diseases of the Prostate Gland, vol. i. p. 40.)

Another way in which any obstacle to the emptying of the bladder becomes a source of mischief in calculous cases, is, that, under such circumstances, the quantity of urine secreted during a given time is diminished, only eight or ten ounces being in some instances voided during the twenty-four hours. An illustrative case of this kind will be found in Sir Everard Home's treatise just quoted (p. 44); and it always happens that the specific gravity of such urine is greatly above the natural standard, and that it becomes very turbid on cooling, even when voided clear, which, however, seldom happens.

Having now, I believe, enumerated the leading circumstances respecting the composition and formation of calculi of the urinary bladder, it remains to make a few observations upon the symptoms that are peculiar to them, and upon the different methods of treatment which they require.

It is not necessary here to enter into the ordinary symptoms of calculus of the bladder, which are so well known, and have been so frequently described; nor shall I, for obvious reasons, notice the uncertainty and difficulty that frequently attend ascertaining the situation and size, and often the existence even of a calculus, by the operation of sounding. The general state of the urine, and of the matters voided with it, are the principal circumstances that bear upon the medico-chemical treatment of this disease; and the passing of different kinds of sand, and of mucus, together with the composition of the urine relatively to its healthy state, are the circumstances to which we must look, as those symptoms of the nature and progress of the malady which are chiefly to guide us in its treatment.

Considered in this view, the treatment of calculus was usually pursued upon very erroneous, and generally merely upon empirical principles, until Dr. Wollaston pointed out those differences in the composition of calculi which I have described, and which were first made known by the publication of his essay in the Philosophical Transactions for 1797. Previous to that period it was customary to consider all calculi as of one kind, and soluble in caustic alkalis; these, therefore, became the prevalent remedies, and have continued so even till now, under the absurd name of *solvents*; even at present it unfortunately happens that but little of the information contained in that paper is known to, or understood by those to whom the treatment of the cases in question is usually trusted; perhaps for want of explicit directions as to

the manner in which the discoveries alluded to were to be brought to bear upon practice: this was one of the main ends of those papers which the Royal Society has done me the honour to publish in their Transactions, (Phil. Trans. 1808, &c.) and the deficiency has since been made good in a more able and connected manner by the publication of Dr. Marcet's essay.

When a stone has once lodged in the bladder, and increased there to such a size as no longer to be capable of passing the urethra, it is, I believe, generally allowed by all those who have candidly considered the subject, and whose experience has made them judges of it, that that stone can never again be dissolved; and although it is possible that it may become so loosened in its texture as to be voided piecemeal and gradually to crumble away, the chances are so much against such an event, that it is scarcely to be ranked among probable occurrences.

In considering, then, the treatment of calculus of the bladder, our attempts are to be directed to the palliation of present symptoms, and to the prevention of increase of size of the stone. Opiates, and the warm bath, and other remedies of that description, may here be passed over, in order to consider the more abstract chemical treatment.

By the inspection of collections of calculi we are taught that in by far the greater number of cases a nucleus of uric acid is enveloped in a crust of the phosphates; our endeavours, therefore, must be directed towards reducing the quantity of uric acid in the urine to its natural standard, when in excess; and to diminishing, as far as may be, the tendency to the deposition of the phosphates; and (as is obvious from the account of the treatment of sand before given,) two very different means being required to attain this end the impropriety of applying one mode of treatment to all calculous cases becomes too evident to require any further refutation.

If, upon examination, it be found that the urine abounds in uric acid; and if, as is frequently the case, red sand is voided, magnesia and the alkalis may be resorted to, but they should not be persevered in beyond what is necessary to arrest the progress of the uric secretion; or, if continued as preventives, they should be exhibited in small doses. It is here especially that magnesia proves useful, for it is less apt to occasion indigestion and its attendant symptoms, than any other alkaline medicine.

If the phosphates predominate, and if white sand is voided, the acids may be resorted to; but in consequence of the more irritable state of the parts, it becomes, more than ever, neces-

sary to use them with circumspection. In general, the white sand voided by patients suffering under stone of the bladder, is occasioned by the too free use of alkalis; and I have more than once known the white sand, thus *produced*, mistaken for the effect of the medicine upon the stone itself, which the patient was led to believe was in the process of solution or disintegration. It is in this way that the alkalis may do considerable mischief, by increasing the facility with which the urine deposits the phosphates upon the nucleus in the bladder, thus tending to the very rapid growth of the stone.

By minute attention to the history of a case, and by knowing the treatment that has been pursued, I have sometimes been able to foretell with some accuracy the nature and structure of the stone, before its removal by operation.

A patient who was cut for the stone in St. George's Hospital by Sir Everard Home, informed me, that about ten years previous to his admission he had suffered pain in the right kidney, which continued for many months, and ended in voiding a quantity of gravel, which he had preserved, and which consisted of uric acid; his urine remained high coloured, and subject to a copious red deposit, and in about three months he became sensible of there being some extraneous body in the bladder, but was not sufficiently annoyed by it to adopt any medical treatment. Two years afterwards he had been exercising a restive horse, and on his return home was seized with all the symptoms of stone of the bladder; he voided for some days a much larger quantity of red sand than usual, and was directed to take soda-water, solution of caustic potassa, and lime-water, which he persevered in almost constantly for two years and a half: he felt much relieved, had suffered no pain in the affected kidney, and only twice, during the above period, had been in much pain in the bladder. He had almost constantly voided white sand, which at last, during the use of the lime-water, became so copious as to induce him to *regard it as lime*, and consequently to leave off his medicines. About eighteen months previous to his admission into the hospital a violent attack of pain came on in the kidney, and he voided between twenty and thirty small uric calculi with most excruciating pain. Uric acid now continued so obstinately prevalent, that large doses of the alkalis did not prevent the formation of red sand; his sufferings increased, and upon admission to the hospital he passed large quantities of uric and fusible sand mixed with ropy mucus.

The history of this case naturally led to the inference, that the stone would be found to consist of an uric nucleus,

enveloped in the phosphates; and upon making a section of it, (it was the size of a small hen's egg, somewhat flattened,) a kidney calculus of uric acid was perfectly distinct in its centre, surrounded by a less compact deposition of the same substance; exterior to this was a layer of the mixed phosphates (fusible), and the outer crust was an intimate mixture of the phosphates and uric acid; so that these successive deposits presented a sufficiently distinct epitome of the case.

Other cases to the same point, and equally illustrative, are detailed in Sir Everard Home's observations on calculi, annexed to my paper communicated to the Royal Society in 1808, (Phil. Trans. 1808,) and where uric acid and the phosphates only are concerned, it is in general not difficult, from a consideration of the history of the case, to predict the nature of the calculus.

Where the calculus is of oxalate of lime, or of cystic oxide, the prognostics are by no means so decided; in the former it generally, I think, happens that there is little or no sand or gravel voided, and that we hear of the symptoms of the stone of the bladder following those of the passage of a calculus along the ureter, but unattended by that production of uric acid and of the phosphates which prevails in the former cases. I can only cite one instance of the extraction of a mulberry calculus by operation, in which some account of the previous symptoms was obtained. The man was sixty-two years of age, and about five years previously had suffered a slight attack of the symptoms of a stone passing from the kidney to the bladder: he had voided no sand, and his urine always appeared clear: during the last two years the symptoms of stone in the bladder attained such violence as to render the operation necessary, and a very perfectly-formed mulberry calculus, about the size of a nutmeg, with a distinct oxalate of lime nucleus, was removed.

Of the history of cystic oxide, as relating to the present inquiry, I know nothing beyond what has elsewhere been mentioned.

The idea of *dissolving* a calculus of uric acid in the bladder by the internal use of the caustic alkalis, appears too absurd to merit serious refutation: it is not possible that they should reach the bladder in a caustic state, in which state only they dissolve uric acid; and if they could arrive there, the mischief done to the urinary passages would doubtless be such as to render their use dangerous and impracticable; so far, therefore, from diminishing the bulk of a stone in the bladder by the solvent power of the alkalis, they will, if not administered, and watched over with all caution, tend to increase its size by facilitating the deposition of the phosphates. At the same time it cannot be denied that the alkalis are very effi-

cacious in preventing the increased secretion of uric acid ; and when administered with that view, they may tend to prevent the increase of a calculus, as far as uric acid is concerned, and in that way add to the chance of its being voided. How the alkalis act, is a question, the discussion of which would lead to an inquiry too extensive for my present purpose : but since magnesia, and carbonate of lime, which are difficultly soluble substances, are possessed of an influence over the secretion of uric acid similar to that of the soluble alkalis, it would seem probable that this operation is chiefly carried on in the stomach and intestines, and that the circumstance of the alkalis and their carbonates passing off readily by the kidneys, has not so much to do with their lithontriptic virtues as has been often supposed.

In respect to the phosphates it seems possible, that by keeping up an unnatural state of acidity in the urine, a crust of the calculus might so far be softened as to crumble down, or admit of being scratched by an instrument ; but this is the utmost that can be looked for, and the uric nucleus remains a complete bar to any perfect removal.

These considerations, independent of more urgent reasons, show the futility of attempting the solution of a stone of the bladder by the injection of acid and alkaline solutions. In respect to the alkalis, if sufficiently strong to act upon the uric crust of the calculus, they would certainly injure the coats of the bladder ; they would also become inactive by combination with the acids of the urine, and they would form a dangerous precipitate from the same cause. The acids, even when very largely diluted, and qualified with opium, always excite great irritation ; they cannot, therefore, be applied strong enough to dissolve any appreciable portion of the stone, and the uric nucleus always remains as an ultimate obstacle to success. Of the greatest difficulty in this plan I have said nothing ; namely, the ascertaining the nature of the surface of the stone that is to be acted upon ; for, admitting this to be known, the above objections, and the necessity of the very frequent introduction of an instrument into the highly irritable bladder, are obstacles which I cannot regard as surmountable. It therefore appears to me, that Fourcroy, and others who have advised the plan of injection, have thought little of all these obstacles to success, and have regarded the bladder as a lifeless receptacle, into which, as into an India rubber bottle, almost any solvent might be injected with impunity.

Having shown the extreme improbability of even a small calculus being dissolved in the bladder, it only remains to notice those cases of supposed solution which have given celebrity to certain remedies : or, in other words, to mention

those causes which tend to annihilate the ordinary symptoms of calculus, though the concretion still remains in the bladder.

Sir Everard Home, in his observations above quoted, has furnished some valuable illustrative cases on this head; and has particularly noticed two, *because they were published during the patient's lifetime, in proof of the stone being dissolved.* These patients had both suffered from the disease many years, but when they attained the age of about sixty-eight, the symptoms entirely left them. In one of these cases twenty calculi were found in the bladder after death, and the cause of the disappearance of the symptoms was found in the enlargement of the posterior lobe of the prostate gland, which, forming a barrier between the calculi and the orifice of the bladder, kept the calculi in its lower posterior part, where they lay without producing disturbance. In the other patient there were fourteen calculi under the same circumstances.

Another cause of the disappearance of symptoms, and probably not of unfrequent occurrence, is the lodgment of the stone between the muscular fascicula of the bladder, where it becomes imbedded in a pouch, and occasions no further inconvenience; and in both these cases a further source of deception may arise in the stone not being readily discoverable by a sound. (See a Plate in Dr. Marcet's Essay).

Lastly, the symptoms of stone have in some few instances almost entirely vanished without any apparent cause; and in two cases that have come within my own knowledge, calculi have been found after death, the existence of which was not suspected during the life of the patient.

I cannot better close these remarks, than by again insisting, both from the patient and Practitioner, upon the strictest attention to the earliest stages of the disease, when, in the majority of instances, it is in a manageable state; and by urging that attention to the nature of the urinary secretions, and to the causes which modify them, upon which alone effectual preventive means can be founded; and by recalling to mind the very important aid that is to be derived from general treatment, connected with the diet, the exercise, and the mode of life of the patient.

Little is known respecting the comparative prevalence of calculous disorders in different districts and countries; and, as will be seen by reference to Dr. Marcet's chapter on this subject, the means of information are very imperfect. We may, I think, rest satisfied that peculiarities in the water of different places have no influence upon the production of calculous disorders, nor does the evidence appear conclusive respecting their supposed prevalence in cider countries: upon these subjects, however, it is extremely difficult to gain unobjectionable information. It is to be hoped that the usefulness

of preserving calculi, with the history of their cases annexed, will induce private individuals to contribute their specimens to some public collection, that of the College of Surgeons, for instance; where they should not merely be preserved as curiosities in a glass case, but a proper section should be made of them, and a note of their chemical composition, together with the sources whence they were obtained, annexed to each calculus. In this way, in the course of a few years, a collection would inevitably arise invaluable both to the master and pupil, and tending more than any other method to elucidate the history of calculous disorders*.

Among the important facts brought to light by Dr. Wollaston's researches, is the analogy between urinary and gouty concretions; the latter consisting of uric acid in combination with soda. Another circumstance, showing the relation subsisting between gout and gravel, is the frequent alternation of the two series of symptoms, and the abundant deposition of uric sand, that often announces the departure of an attack of gout.

The same causes which produce gout are probably often effective, as I have elsewhere stated, in disposing to calculous affections; and the same remedies are often efficacious in both diseases. It deserves trial, how far the colchicum autumnale, which has proved a specific in gout, may be efficacious in preventing the formation of that excess of uric acid in the system, which, when thrown off by the kidneys, forms the commonest kind of gravel and calculus, and that which is productive of the most alarming consequences†.

[From the *Quarterly Journal of Science*.]

[The reader may expect an apology for the disproportionate length of the above selection; but beside that we have been put out in our arrangement of matter by less of foreign literature coming to hand than had been calculated on, we have felt unwilling to weaken the interest of Mr. Brande's very excellent paper by further division. Ed.]

* This plan is pursued, I understand, in the Norwich and Norfolk Infirmary, with the greatest advantage.

† Since writing the above, I have received a very flattering account of the success that has attended the use of the vinum colchici in an obstinate case of red gravel, but have not been able to obtain such particulars as can at present be published. I trust the subject will not escape the attention of those whose practice may enable them further to investigate it.

I take this opportunity of referring the reader to a valuable paper of Dr. Henry on Urinary Concretions, in the tenth volume of the *Medico-Chirurgical Transactions*. I was not acquainted with this paper whilst writing the above, or I should have availed myself of its contents. I am happy to find many of my conclusions sanctioned by Dr. Henry's authority.

PART IV.

FOREIGN MEDICAL SCIENCE AND LITERATURE.

RETROSPECT OF FOREIGN MEDICAL SCIENCE AND LITERATURE, FOR THE YEAR 1819.

WE proceed, as proposed in our last Number*, with the unfinished

ANALYSIS OF FOREIGN PERIODICAL LITERATURE.

This analysis comprehends the various journals for the last half year of 1819.

NEW JOURNAL OF MEDICINE, SURGERY, AND PHARMACY.

JULY, 1819.—*Original.*—*Note on the Comparison to be established between Syncipital Cauterization in the Treatment of Epilepsy, and another Mode, which may be termed Cervical Cauterization.* By Professor Hallé.—Cervical cauterization consists in the application of a cautery, either by moxa or hot iron, at the superior and inferior extremities of the cervical spine. Employed in a young man for a chronic soporous affection, complicated with epilepsy, and supposed to indicate cerebral effusion, it completely removed both. Since then, the Professor has used it with such success in uncomplicated epilepsy, as to excite in his mind a preference to almost every other remedy. He wishes an experimental comparison to be established between this and syncipital cauterization, (which, from some inaccuracy in the mode or principle of its application, has fallen into unmerited disrepute,) and other anti-epileptic remedies. In one instance, violent irritation of the occipital muscles ensued after cervical cauterization, so as to render impracticable the maintenance of its action, which had suspended the epileptic paroxysm for three months. The attacks recurred on cessation of the cautery, but finally yielded to the employment of nitrate of silver. This remedy, unless cautiously watched, is apt to induce extensive and dangerous ulcerations of the gastric and faucial mucous membranes.

Extract of a Memoir on a New Method of Opening the Pericardium†. By M. Skielderup.—Hitherto the pericar-

* See our last Number, page 87.

† Taken, with the next case, from the *Nova Acta Reg. Societ. Med. Hafniensis*.

dium has been opened by incision of the intercostal muscles. To this mode it is objected, that the pleura must necessarily be wounded, and part of the fluid contained in the pericardium will probably be effused into the chest. In the lower part of the anterior surface of the pericardium is a triangular space, adjacent to the posterior surface of the sternum, without any interposition of the pleuræ. Here the former membrane may be incised without implicating the latter, as is proved by application of a trephine to the centre of the sternum. This space, as evidently results from the structure of the pleuræ, is placed more to the left than right, with its base on the diaphragm, and summit at the fifth rib, and filled with cellular substance. Hence the trephine should be applied to the sternum between the fifth and sixth ribs. Various experiments are cited in demonstration of this anatomical fact. The operator, in this case, should attend to the following remarks:—1. Lesion of the pleuræ in trepanning the sternum is more readily avoided, as the membrane, investing the posterior surface of the bone, presents a strong resistance to the crown of the instrument. 2. If, on incising this membrane, hæmorrhage occur, the remaining operation should be deferred. 3. Even when no hæmorrhage takes place, incision of the pericardium should not be practised until the membrane, recognizable by its fluctuation, has presented at the orifice of the sternum. 4. In this operation the patient should incline forwards.

Case of Parturition which terminated naturally, although the Uterus was contained in an Abdominal Hernia. By J. S. Saxtorph.—This is detailed at great length. The subject aged forty-nine, and in her fifth pregnancy. Her former deliveries had been fortunate. From her infancy there had been a tumour in the right groin, consequent on a fall. During her last pregnancy it had the volume of a cabbage head, and was unattended with pain: in the commencement of the present (April), it began to increase. It now (August) covered the anterior and internal part of the right thigh, descended to the knee, was painless, exhibited evident fluctuation, and, somewhat obscurely, the motions of a foetus. Lumbar pains, resembling those of parturition, had commenced. Nothing particular resulted from vaginal examination. None of the abdominal contents appeared to have been protruded into the tumour. It was supposed to be of an encysted nature. The tumour gradually enlarged, with occasional pains, and frequent intestine movements. During the night of Sept. 30th a quantity of aqueous fluid was discharged, without pain, from the vagina; and on

the morrow the body of a foetus felt through the parietes of the diminished tumour.—Oct. 2d. Intermittent and bearing pains in the tumour itself, which exhibited contractions like those of the fundus uteri in parturition. Soon afterwards the head and part of the umbilical chord of the foetus presented. At night, a dead female child, weighing five pounds and a half, and, with exception of the finger and toe nails, perfectly formed, was naturally expelled. The placenta was detached, without hæmorrhage, by the hand; and the woman speedily recovered. The tumour, greatly diminished, and supported by a bandage, still contained, united with a cyst filled with fluid, a great portion of the uterus, which was evidently protruded through the fibres of the abdominal muscles.

Some Therapeutic Facts, translated from the Russian Physico-Medical Repository, &c. By E. Martini.

1. *On the Employment of Tartarized Antimony in Opacity of the Cornea.* By Dr. Witzmann.—This remedy is applied in the form of ointment, composed of fresh butter and castor oil, each one drachm; tartarized antimony, four grains, afterwards gradually increased to twenty grains. A small portion of it is introduced into the eye night and morning, and its diffusion facilitated by friction of the upper eyelid. To promote absorption and allay pain, a warm compress is then bound on the eye for two hours. A few drops of tinct. opii are added, if great irritation exist; and cerebral or ocular congestions are combatted by pediluvia. When revulsives become necessary, common antimonial ointment is applied, by friction, to the nucha. This plan has been employed with success in many cases of long standing. Amendment commonly commences in about eight days, and the cure is accomplished in a month or six weeks. The state of the system, and particularly of the intestinal canal, should at the same time be attended to; and recovery will be expedited by confinement to a warm and dry air.

2. *Observations on the Employment of Acetate of Lead in Diseases of the Respiratory Organs.* By Dr. Harke.—To diminish the morbid irritability of the lungs, produced by ulceration, and sustained and aggravated by the continual action of atmospheric air, constitutes the principal indication in the treatment of pulmonary phthisis. To fulfil this, the acetate of lead is proposed; and, in proof of its efficacy, two cases are detailed. The *first* describes its successful exhibition, in morning and evening doses of half a grain, subsequently increased to one grain, against a violent "dry cough," attended with faucial irritation and thoracic pains, which had resisted various other remedies. In the *second*,

an example of "phthisis with vomica and empyema," in a man of forty, strongly characterized by all the usual symptoms, and wherein a large quantity of pus had been discharged, first from an external thoracic tumour by incision, and afterwards from the bronchiæ, on rupture of an abscess, the acetate was successfully prescribed. After a while, decoction of cinchona was conjoined. The external wound was cicatrized on the forty-fifth day, and the man perfectly recovered. Several equally fortunate cases are briefly adverted to.

3. *Some Popular Remedies employed at Irkutsk and in the Vicinity of the Baikal.* By Dr. Rehmann.—In this remote part of the Russian empire the following remedies are used in the various diseases here specified:—*Parnassia palustris*, decoction, in retention of urine; *androsace lactea*, decoction or infusion, retention of urine, epilepsy, vesical calculus; *chrysanthemum leucanthemum*, *leucorrhœa*; *gentiana macrophylla*, cerebral excitement, delirium, sleeplessness; *dentaria bulbifera*, leaves and root, (latter most efficacious,) nervous affections, convulsions, epilepsy; *convallaria polygonatum* gout and rheumatism; *gentiana campestris*, worms; *statice speciosa*, uterine relaxation; *eriphorum polystachion*, epilepsy and spasmodic affections. By the inhabitants of Oesel, it also appears that the fresh leaves of parsley are employed in glandular indurations; powdered coal with brandy, or the *hypericum perforatum* macerated in this spirit, in dysentery; and *ranunculus acris*, and *R. aconitifolius*, boiled in beer, in gout. A thesis has also been written by Dr. Werner, on the efficacy of another popular remedy, (*rubus chamæmorus**) against retention of urine proceeding from atony of the bladder. The plant may be administered in infusion, powder, or extract.

New Method of treating Fractures. By Dr. Hubenthal.—Consists in surrounding the fractured limb with a case of plaster, in which, if any wounds requiring frequent inspection exist, corresponding holes are made. Has formerly been practised in this country.

Analytical Extract of a Treatise entitled, Cogitata quædam supra Hydrophobiæ Naturam et Medelam. Auctore Theobaldo Renner, M.D., &c.—The characteristic phenomena of this disease are referred, by the author, to inflammation of the nerves in the vicinity of the wound, determined by the action of the poison, and hence proportioned, not to the extent of the lesion, but to the number and superficial

* *Dissertatio Inauguralis de Herbâ Rubi Chamæmori.* Vilnæ, 1815.

site of nerves implicated. The inflammation is propagated from the nerve to the cellular structure; and it is particularly to the spinal chord and brain that this affection of the neurilemma extends, as proved by the sensation which shoots from the wound, sometimes to the head, at others to the back or stomach. The affection thus transmitted is reflected on the fifth and eighth nerves, and consequently on the lower jaw, pharynx, and œsophagus. Hence their convulsive motions. The red striæ, observed in the stomach and œsophagus, are probably only inflamed nerves. The same explanation is given of the streaks extending from the wound. In like manner, tetanus succeeds severe injuries. All the phenomena of hydrophobia, finally, it is contended, show that the disease acts not directly and essentially on the vascular system, and that the poison is not carried into the circulation. The treatment consists in application of caustic potash to the wound, and maintenance of suppuration for three months, division of the nerves, in some cases, between the spine and wound, and narcotics internally, particularly belladonna. Concludes with an enumeration of the popular remedies employed in Russia against this disease; all vegetable, and none signalized by peculiar activity or virtue.

Bulletins of the Faculty of Medicine of Paris, 1819.

No. VI.

Report made to the Faculty, &c. on the Memoirs relative to an Epidemic which prevailed, for Five Months, in the District of Gordon, Department of the Lot. By MM. Desgenettes and Hallé.—Three memoirs, on this subject, were addressed to the minister of the Interior. The authors were all agreed on the nature of the malady; but, from its matter and style, the memoir of Dr. Mayenc is preferred; and of this an analysis is given. The disease appears to have been an angina, complicated, in certain subjects and situations, with a miliary catarrhal fever, presenting in some instances inflammatory, and in others typhoid symptoms. The typhoid species was sometimes ushered in by inflammatory symptoms, which declined from the fourth to the tenth day, and were succeeded by those of an asthenic character. The angina appeared in all its varieties. The laryngeal and pharyngeal were most violent. The former, attacking children, constituted croup. Except in this case, the angina never appeared to be the cause of death; the fatal event was rather attributable to the fever, which was considered independent on the local malady. Duration of it, fifth,

seventh, ninth, and fourteenth day. Sometimes terminated by critical nasal hæmorrhage on the fifth; but this evacuation, in the originally typhoid species, only aggravated the delirium. Sometimes metastasis to the right testicle, with immediate cessation of the angrinal affection; occasionally gouty metastasis. In fatal cases, death happened from third to tenth day; and particularly on the fourth, sixth, eighth, and tenth. In such cases, either the eruption had not come out, or had exhibited a violet colour mixed with black points, and suddenly receded. Death, when occurring early, was preceded by signs of cerebral congestion; but, at a later period, the putrid character predominated. The results of dissection and treatment are not stated. The disease is attributed to sudden atmospheric vicissitudes of the autumnal equinox.

Extract of a Memoir on Delirium Tremens. By Dr. Rayer. — Proposes to substitute for the present name that of *ænomania*, as more proper to characterize the species of mania resulting from abuse of strong liquors. Nothing new on its characters or treatment.

Two Sitzings of the Faculty, and Two of the Society, during June.—3d. Dupuytren communicates, verbally, the case of a woman in whom uterine cancer had been cured by application of caustic potash, with the assistance of a sort of speculum uteri. The woman examined by Ribes and Marjolin, who report that the anterior labium of the os uteri has been completely destroyed and cicatrized.—10th. A young lady presented, in whom Beclard has removed the superior third of the right fibula, affected with spina ventosa. Larrey exhibits a young soldier whose thorax has been completely traversed by a sabre. The point entered behind, near the angle of the scapula, between eighth and seventh ribs, and came out between fifth and sixth, below the left nipple.

AUGUST.—*Original.*—*View of the Present State of Medicine in the Ports of the Levant.* By Dr. Legrand.—Represented as in extreme degradation, necessarily resulting from the superstitions of the people, and ignorance and impostures of the medical pretenders. The noxious effects of habitual abuse of opium, very strongly portrayed. Vaccination, after encountering great prejudices, has been generally introduced. In some cases, variola of a very mild character has succeeded vaccine inoculation. Warm springs occur very frequently, but are little employed in a therapeutic view. The analysis of the waters of two is here given. Consist principally of muriates of soda and magnesia, sul-

phates of lime and alumina, silix, and oxide of iron*. A curious account is given of a grotto, near the village of Milo, wherein sulphur and alum are spontaneously formed. Around this natural laboratory an elevated temperature prevails, and a dense sulphureous vapour floats. The stones are hot, and covered with different and variously coloured concretions, and these again smeared by an oily fluid possessing all the properties of sulphuric acid. The roof, walls, and floor exhibit a layer of pure sulphur and sulphate of alumina. The former extends a hundred paces from the grotto. A low noise, doubtless resulting from decomposition of the boiling water and pyrites, is constantly heard here.

Note on a New Process for introducing the Thread into the Nasal Duct, in the Operation for Fistula Lachrymalis, by Desault's Method. By M. Henneille.—The canula introduced in the usual way, one yet smaller, and containing a thread with a minute tag at its extremity, is to be passed into it: then, by means of a steel blade, highly magnetized, and introduced externally into the nostril, the tag and thread are both drawn out, and the operation terminated in the ordinary manner.

Case of Rupture of the Uterus in Pregnancy. By M. Amussat.—An almost idiotic woman, who had twice before been pregnant, suffered, in her first labour, from chronic delirium, consequent on suppressed lochia, and been repeatedly attacked with mania, exhibited, on the morning of July 4th, 1819, signs of labour. At eight o'clock the membranes burst. At ten, head felt presenting. Pains severe during the day. At night, vomiting of greenish matter. Ten P. M. convulsions, with insensibility. Midnight, delirium. Two next morning, labour little advanced. Five, forceps introduced, but fœtus receded before it. Extraction by the feet, at last, with difficulty effected, and rupture of the uterus ascertained. Constant nausea. Eight, placenta detached, without profuse hæmorrhage. Delusive calm till evening. Night, agitated, with severe pains and cold sweats. No appearance of lochia. Next morning, face shrunk, general cold sweat, abdomen very painful. Death at two P. M.

Dissection on the 8th.—Exterior. Abdomen yet large; red streaks on the neck, back, and limbs, corresponding to superficial empty veins.—Abdomen. Anterior paries very thin. On raising the uterus anteriorly, a considerable coagulum of blood seen at its left posterior part.

* The temperature about 45° Reaumur's thermometer, 133° Fahrenheit.

A large rupture, containing the sigmoid flexure of the colon, discovered on introduction of finger into the vagina. It would admit the fist, and implicated both uterus and vagina to an equal extent. In the former, seemed to have been arrested by the transverse fibres. Marks of attachment of the placenta in the centre of the posterior paries of the organ, which was about the size of two fists. At the anterior and inferior part of its external surface, (which was red and rounded,) near the neck, a small fibrous tumour, with a short and thin pedicle. Nothing particular in the other organs, except that the heart was large and flaccid, the cranial bones hard and thick.

Note on the Medicinal Employment of Alumina. By Dr. Ficinus. (Translated from a Dresden journal, by M. Martini.) Dysentery and diarrhœa are invariably aggravated by the presence of acids in the intestinal canal, whether generated there, or introduced in food or medicine: hence absorbents always indicated*. Soda and potash, given to neutralize the acid, form with it purgative salts, and are objectionable: the same with magnesia. Ammonia is too acrid, barytes poisonous, the action of strontian unknown. Thus lime, in its pure and carbonated states, alone remains. But the author, disappointed in the effects of this, has turned his attention to alumina, which has answered his expectations. He prescribes it in doses of eight or ten grains, commonly combined with gum acacia and sugar. Addition of opium, camphor, and aromatics, sometimes useful. Taste insipid; and may be administered in decoction or emulsion. It may be precipitated from alum by the carbonates of potash or soda; and should be afterwards washed and dried. The little sulphuric acid still retained will be unimportant.

Varieties.—A small portable galvanic apparatus has been invented by Aldini. It is contained in a wooden box, ten inches by two; and very convenient, on account of its applicability to cases of asphyxia and apparent death. The extract of centaurea benedicta, recommended by Scegert to the Med.-Chirurg. Society of Berlin, as very efficacious in inveterate syphilitic affections. Dose, from one to three drams daily. Applied also externally to the ulcers. Four successful cases of nose-manufacture, from integuments of arm and forehead, reported to same society, by M. Græfe. Case of varicose aneurism of the left carotid artery, consequent on a wound which appeared to have divided it and the jugular vein, and left an orifice of communication

* It should here, once for all, be recollected, that the EDITOR is detailing, not his own opinions, but those of the foreign writers.

between them. The vein was much dilated, and communicated, beneath the pressure of the finger, a peculiar thrilling, as far as the clavicle; undulations, corresponding to the arterial strokes, perceptible to the eye; and a sound to the ear, resulting from the passage of the blood through the unnatural opening. There was a small tumour, which diminished on compression; but its volume and pulsation were unchanged by pressure on the artery below. Left arm numbed and painful. The health good, and tumour not increasing, nothing was attempted. Observed by Dr. Desparanches.—Some cases published by M. Burgeois, wherein sulphuret of potash administered in croup has induced fatal diarrhœa, with inflammation, and, probably, ulceration of the intestines. He proposes, as a substitute for the sulphuret, application of moxa to the epigastrium. Chomel has proved, by dissection of croupy children, the caustic action of this substance on the gastric mucous membrane.—M. Roux has communicated some interesting facts relative to hydrocele. In a man, operated on the second time by injection, the fluid, instead of being uniformly diffused round the testis, was unequally distributed in the tunica vaginalis, as though contained in separate cells. By the first operation, partial inflammation, and consequently partial adhesion of the membrane, had only been induced. The injected fluid was pressed out with unusual difficulty: and the septa, dividing the cavity, might be distinguished by the touch. Another man died, on the tenth day of the operation, from gangrenous erysipelas of the scrotum and adjacent parts.—Dissection. T. vaginalis containing a large quantity of whitish serum, with flakes of albumen floating in it; others, of same nature, forming, on surface of testis and of the membrane, a stratum beneath which the serous membrane was seen of a deep red colour and somewhat thickened. Epididymis and inferior part of the chord tumefied: not the testis itself. Long previously to observation of this fact, Roux suspected that the swelling of the scrotum, consequent on injection of an irritating fluid, arises not from tumefaction of the testis, but from rapid exhalation of a sero-purulent liquid into the T. vaginalis. His reasons are given at some length; and he claims the merit of priority in this opinion.—Dr. Bard has written a memoir on organic diseases of the stomach, wherein he describes pyloric cancer as commonly inducing dilatation of the organ. By Merat this opinion is controverted as erroneous. The assertions of both incorrect. Dilatation of the stomach does or does not exist, according as the pylorus is *contracted*, or otherwise. Both these dispositions may exist in pyloric scirrhus. Not the scirrhus, but the condition of the pylorus,

should here be considered. It is a precept universally applicable in the animal economy, that when a canal becomes contracted at any point, dilatation occurs on that side where the substances which it is destined to convey necessarily accumulate, and diminution of calibre on the other.—Professor Foderé gives some curious details respecting small colonies of leprous persons that still exist in retired situations, and little known, in France. The disease first commences about the twenty-fifth year, and constantly proves fatal between the forty-fifth and fiftieth. It is transmitted from one generation to another, but is not communicated by contact.

Bulletins of the Faculty, &c. 1819.—No. VII.

Report on Convulsions in parturient Women, observed by M. Desjardins. By Professor Desormeaux.—The cases are seven. Of these, five occurred during child-birth. In the second and seventh, the development of the convulsions was apparently owing to the violence and inefficacy of the uterine efforts in expelling the head. In the three others, they came on during labour, without evident cause. In all, the few symptoms, described by the author, indicate cerebral congestion as their proximate cause. Venesection, antispasmodics, and particularly prompt delivery by the forceps or turning, were the means successfully employed. All the women, and two of the children, saved. The author asserts that he has met with seven cases of convulsions in one thousand labours.

Extract of the Report of MM. Duval and Marjolin, on Cases of different Diseases of the Urinary Passages. By M. Lesage.—*Case 1.* Hematuria and ischuria requiring continued use of catheter.—*Case 2.* Retention of urine, consequent on contusion in the perineum. Catheter obstructed by a tumour, which, on being opened, gave issue to the urine; and, the catheter being introduced again, healed in six days. Fever, with puriform urine and extreme emaciation. Eventually cured by vesical injections.—*Case 3.* A boy, aged 9. Urethral fistula, with contraction of the canal, from contusion. Cured in two months by gradual dilatation.—*Cases 4 and 5.* In which bad elastic gum catheters broke in the urethra. In the former, the remaining portion extracted by fine forceps from a distance of three inches. In the latter, the two fragments held together by a thread of the woof, and the posterior portion thus extricated.

Note on the Fragility of some Elastic Gum Catheters. By M. Duval.—Many spurious instruments of this nature are manufactured in Paris, and disposed of principally in the

provinces. They are very fragile, and their fracture, when in the bladder, gives rise to dreadful accidents. Six cases are here mentioned, wherein the operation of lithotomy has been performed to extract fragments of catheter. The genuine instrument may be distinguished by the facility and safety with which it may be bent in every direction.

Process for preserving Anatomical Preparations dry and flexible. By M. Bogros.—This consists in their immersion in a mixture of two parts of spirit of turpentine and one of alcohol at 96°. We shall hereafter more fully notice it.

Two Sitzings of the Faculty, and Two of the Society, during July. 15th.—Dupuytren presents several individuals treated by him for aneurism; two, femoral and popliteal, by compression unsuccessfully; a third, with aneurism by rupture and varicose aneurism at the bend of the arm, in whom Anel's (Hunter's) operation effected only the cure of the venous aneurism, and ligature of the artery above and below the wound was subsequently employed with perfect success. In a 4th the femoral artery had been opened by a knife. A pulsatile aneurismal tumour remained, which disappeared under compression in one month; but from the artery at the point of the wound issued a noise resembling that of varicose aneurism.

SEPTEMBER.—*Original.—Case of Malignant Putrid Fever.* By Dr. Noverre.—Subject, aged 23, drank cold water during perspiration. Next day, July 4th, ardent fever. After five days, abdominal pains with diarrhoea. 15th, Received into la Charité. Symptoms, then, prostration, weariness of limbs; suborbital headach; tinnitus aurium; eyes slightly injected; tongue red and dry; inappetence; thirst particularly for acids; abdomen soft; evacuations loose; thorax sonorous and painless; pulse hard and frequent; face red and tumefied; skin hot and bathed in perspiration. Little alteration, except that the skin became dry; pulse feeble; and abdomen sore and tumefied, till 22d. Pulse, on that day, intermittent; belly greatly distended; and delirium first announced. 24th, Permanent delirium; countenance earthy; tongue encrusted and in constant agitation; diarrhoea; respiration short, stertorous, interrupted. 26th, Death. Remedies: leeches behind each ear; vegetable acids; opiates; sinapisms to the feet, epigastrium, and knees, in succession; blisters to the legs and nucha; serpentaria; acetate of ammonia; ice to the head.—Dissection, fourteen hours after death. Escape of three ounces of blood, on opening the cranium. Superficial vessels of the brain injected; its substance soft, and exhibiting a great number of loaded blood-vessels. Four ounces of bloody serum in the lateral ven-

tricles. Fourth ventricle full. Cerebellum and medulla oblongata sound: large quantity of black blood in vertebral canal. Pericardium closely and almost universally adherent to the heart: a small dry cavity on the free border of right ventricle. Heart itself, pale and flaccid; its right cavities containing fluid blood, and the ventricle a polypous concretion. Abdomen distended and sonorous: large intestines prodigiously dilated by gas, otherwise sound. Rest of the intestinal tube quite collapsed. Mucous membrane of stomach slightly speckled with red to the extent of two inches near the cardia. Duodenum and jejunum unaltered. Ileum inflamed in about five inches of its lower portion, and five mesenteric glands, corresponding to it, enlarged, indurated, and gorged with blood.

Case of Inflammation of the Œsophagus. By the same.—A gardener, aged 56, was, without known cause, suddenly waked in the night, July 15th, by violent pain behind the sternum, in the whole mesial line of the thorax. Heat in the throat, fever. Deglutition, especially of solids, dreadfully painful, and almost impracticable. Received, after seven days, into la Charité. Symptoms: countenance red, expressive of inquietude and pain; tongue moist, red at its borders and point, and base covered with a yellowish grey fur; sense of faucial heat and irritation, without tumefaction or redness. Severe pain in direction of œsophagus, ceasing at the cardia, and accompanied by general spasm and anxiety, which were fearfully aggravated on any attempt to swallow fluids; these reaching the stomach only after a series of painful efforts; abdomen soft, and tolerant of pressure. Voice sunk; respiration free; thorax painless and sonorous; skin moist; pulse full and soft. Sixteen leeches to the throat; demulcents; stimulant pediluvia. 23d, Pain somewhat less; constipation for the last two days. Venesection; twelve leeches to throat; purgative injection; vegetable acids; sinapisms. 24th, Marked relief; voice restored; deglutition less difficult; pulse harder. Twelve leeches to the throat. 25th, Bleeding in the foot; purgative injection. 26th, Deglutition difficult, but without pain. Sixteen leeches on each side the chest: pedal sinapisms. 27th, Deglutition natural. 28th, Convalescent.

Case of Perforation of the Stomach. By Dr. Desgranges.—A woman, judged to be in sixth month of pregnancy, found senseless. Nothing known respecting her. Suspected to have been poisoned by *eau de Javel*. Symptoms, those of inflammation of cerebral membranes—convulsions; paralysis of one arm; dilated pupils. She died soon after. The Cesarean operation was instantly performed, and a dead

fœtus, of five months, extracted.—Dissection. Perforation of the stomach (apparently independent on the cause of death, or poison) round, with thin borders, and in centre of the great curvature. Organ itself flaccid, soft, thin, uninflamed, and almost empty. Mouth, œsophagus, and intestines, perfectly natural. Cerebral membranes inflamed, and pus over the whole extent of the arachnoid.

View of the present State of Medicine in the Ports of the Levant. By Dr. Legrand (concluded).—Completes the cheerless and disgusting picture commenced in the last article.

Case of complete Inversion of the Uterus succeeding Delivery. By Dr. Troussel.—This occurred in a consumptive subject, aged 43, on the day after her third delivery, while making efforts to evacuate the bladder; and was succeeded by constant inclination to void urine, but without pain. The tumour, of the volume of two fists, was pear-shaped, of a pale red colour, and every where smooth, except where the inequalities, resulting from the attachment of the placenta, were observed. But little blood oozed from its surface. It was perfectly reduced by pressure, and subsequent introduction of two fingers into the vagina. Again protruded during a coughing fit; it was more readily returned. Constant reclusion on the back, silence, repose, and application of pressure to the vulva, during the cough, effectually prevented a relapse. This treatment was continued for some days.

Extirpation of the Parotid Gland. By Dr. Ohle.—Will be hereafter noticed.

Note on the unusual Development of the great Sympathetic Nerve, observed on the Bodies of Persons who have died idiotic. By Dr. Cayre.—In nine individuals affected with idiotism, Dr. Cayre has found the cerebral and spinal nerves yellow, thin, and, as it were, wasted, and surrounded by a very dense cellular structure, which greatly embarrassed dissection. The great sympathetic presented a contrary disposition. Its cervical ganglions were greatly developed, particularly the superior, which was three times larger than common. Their grey substance was not altered. The thoracic and semilunar ganglia, and numerous nerves which they send off, were equally enlarged. The abdominal viscera remarkably developed. From this disposition, some physiological inductions may, in the author's opinion, be drawn; and the differences between idiotism and dementia be, to a certain point, established. Idiotism consists in obliteration, more or less complete, of the intellectual faculties, and of all the acts of relation: and the functions of assimilation are propor-

tionately augmented. Idiots are generally voracious eaters, and digest with great rapidity. Comparative anatomy confirms these inferences. The nervous ganglia are much larger, and furnished with a greater proportion of grey substance, in young animals, whose assimilating functions are generally most active, than in old. And the ganglionic system is never more strongly marked than in animals whose intellectual faculties are most limited, and encephalon comparatively small. In four of the subjects examined by the author, the idiotism had come on between the 20th and 40th year: in the others, congenital.

Varieties, uninteresting.

Bulletins of the Faculty, &c. 1819.—No. VIII.

Reflections on Materia Medica, and on the Doses in which some Medicines may be administered. By Dr. Fouquier.—First part occupied by remarks on our imperfect knowledge of this branch of medical science. Observations on particular remedies, afterwards. *Rhus toxicodendron* efficacious in paralysis, particularly of the lower limbs; has given 250 grains of the extract in a day, without disordering the stomach. Distilled laurel-water he has prescribed to a very large amount, without discovering any poisonous or other medicinal property. Acetate of lead eminently serviceable in colliquative sweats. Extracts of the *aconitum napellus* and of *lactuca virosa*, diuretic; as also tobacco. A case cited wherein, externally employed in decoction, the latter acted powerfully on the kidneys, and induced nausea, vomiting, and a taste of tobacco, as though it had been internally taken.

Case of Gangrene of the Face in an Adult resembling that which has been represented as peculiar to Children. By Dr. Lévillé.—Subject aged 25. Nothing peculiar in this case, except an abscess on external part of right knee, which spontaneously burst. The patient, horribly disfigured by ulceration and consequent exposure of the maxillary bones, sunk on 27th day. Body not inspected. Proves, with a case detailed by Baron*, that the disease, although usually attacking infancy, is not exclusively restricted to it.

Observations on Gastrotomy. By Dr. Cayroche.—Sept. 14th, 1818. A lady, aged 24, accidentally swallowed a silver fork, introduced into the œsophagus with a view to excite vomiting. For three months merely a sense of weight resulted. The handle might be felt externally in

* A good Memoir on this subject has been published by Dr. Baron. See *Medico-chirurgical Journal*, vol. iv. page 70.

the right of the epigastrium; prongs apparently below the liver. Appetite and digestion unimpaired: nothing done. Fifth month, violent vomiting from indigestion; and position of the fork changed: handle now two fingers' breadth above the umbilicus, and two inches to its left; prongs probably in right hypochondrium, beside the spine. Henceforth, severe pain and progressive emaciation. Appetite good; discharges regular. Second vomiting, in the sixth month, followed by a large external tumour corresponding to extremity of the fork, which was moveable in every direction. Violent pain induced by pressure: integuments adherent to the tumour, but without redness. Sufferings aggravated by progression, or posture requiring tension of the abdomen. An operation at length determined on, and performed by Dr. Cayroche, May 1st, 1819. The first incision, two inches in extent, was made in the most prominent part of the tumour. The fibres of the left rectus were next divided. Two small arteries sprang, and were secured. Adhesion existed between the abdominal and gastric peritoneum. On opening the stomach, no hæmorrhage; a little gastric fluid, and frothy mucus escaped. The fork, its prongs extricated by dissection from the membrane of the stomach, was readily extracted*. Simple dressings were applied, as a bandage could not be borne. Symptomatic fever was combatted by repeated blood-letting. Liquids and flatus at first escaped from the wound; but ceased on the third, when a bandage was applied. 6th, Began to take solid food, and change her posture. 14th, Left her room. 20th, Wound healed; external tumour gone: quite well.

Two Sitzings of the Faculty and Two of the Society during August.—12th. M. J. Cloquet presents to the Society a heart, with a large communication between the auricles. The subject, aged 44, had exhibited no appearance of cyanosis. Also a soldier, aged 33, who had a small, round, resistant, painful tumour on the left side of the thorax, between the eighth and ninth ribs, caused by the passage of a piece of artillery over the abdomen, at the battle of Lutzen. Its immediate consequences dreadfully severe. It is irreducible; and sometimes increasing in size, induces all the symptoms of strangulated hernia. Supposed to be

* The fork, which had remained in the stomach 229 days, was seven inches two lines in length; one inch in greatest breadth, and weighed three ounces fifty-eight grains. It was covered by a hard, blackish crust, separable on friction, and retained, for ten days, a fœtid odour.

hernia of the stomach or transverse colon. Will be published in farther detail.

MEDICAL MAGAZINE.

JULY, 1819.—*Bulletin of the Atheneum of Medicine.*

Two Sitzings of the Society during May.—22d, Villeneuve reports the successful exhibition of a scruple[dose of ergot of rye in two cases of difficult, but natural labour.

Cases of spontaneous Gangrene, &c. By Dr. Avisard, (concluded)*.

AUGUST.—*Bulletin of the Atheneum, &c.*

Two Sitzings of the Society during June.—12th, M. Trappe mentions a case of encysted dropsy of the ovary, wherein tapping had been unsuccessfully practised. On dissection, two cysts were found adherent to the ovary; into one of which only the trochar had penetrated. The other was filled with a viscid fluid similar to that extracted from the first. — Professor Lallemand, in speaking of a case of rupture of the superior vena cava observed by Dr. Bland, cites the instance of an inmate of l'Hospice des Incurables, who died suddenly after drinking a glass of brandy. On dissection, was found a rupture of the apex of the heart extending into one of the ventricles. Arvers and Bricheteau have observed similar facts at la Salpêtrière. In all these cases, the rupture was unpreceded by moral or physical disturbance.—De Lens, on this occasion, refers to experiments of Chaussier, proving that ligature of the aorta instantly determines rupture of heart.—26th, Villeneuve speaks of a medical student who, during indisposition from a puncture inflicted in dissecting, had destroyed himself by opening the femoral artery at the edge of the sartorius. Wound of the thigh two inches: artery three parts cut through: its orifice gaping.

Case of Inflammatory Nervous Fever, with Peripneumony, in which, during and after the administration of Musk, there was established an advantageous Solution which Nature had constantly refused to strongly indicated Venesection. By Dr. Recamier.—The nature and objects of the case are sufficiently explained by its title. It occurred to a lady, aged thirty-four, in her seventh pregnancy. The "reflections" of the author savour somewhat too strongly of musk.

Cases of Vomica, or Abscess, formed in the Substance of the Lungs. By Dr. Lallemand.—A woman, aged fifty-three,

* See REPOSITORY, Vol. XII. page 436.

enfeebled by labour and unwholesome food, and inhabiting a damp situation, was attacked by diarrhœa, of a fortnight's continuance. Exposed to cold while much heated, she experienced all the symptoms of pleuro-pneumonia, with fixed pain in the right side. Admitted into l'Hôtel-Dieu on the eleventh day; she displayed very severe symptoms. Sound in the right side of the chest, quite dead; left, obscure; and, in addition, unequivocal signs of gastro-enteritis. Blood-letting and antiphlogistic treatment employed with sensible amelioration; left side sonorous.—14th. Cold sweats; pulse thready; respiration hurried and rattling; delirium; death impending. Sinapisms to the calves. Next day, better; expectoration more easy and copious. Stimulant treatment internally; derivatives externally. Pnéumonic symptoms subsiding; the abdominal unsubdued.—16th. Pain above the pubes necessitating application of fifteen leeches. Stimulants continued. Gastro-enteritic symptoms as before.—21st. Fœtid breath. Death on the 22d.—Dissection. Mucous membrane of pharynx, larynx, and trachea of a bright red colour, progressively increasing in intensity to the minute bronchial ramifications, and exhibiting a strong contrast to the paleness of the œsophagus, at the level of the cricoid cartilage. Both lungs adherent, particularly the right; the adhesions of which were general and strong. Its summit, on division, found transformed into a cyst, nearly four inches in diameter, separated anteriorly from the pleura by the thickness of only a few lines; posterior paries one inch; internal surface rough, blackish, traversed by bands and septa*, which crossed the cavity in every direction, and formed it into different cells; portions of the lung, some very large, disorganized, and connected only by vessels or bronchial ramifications, floating here and there in the cyst; pulmonary substance constituting its parietes, soft, and readily lacerable; rest of the lung hard, compact, loaded with pus, which was so mixed, or rather combined, with its structure, as to give it the aspect of fat liver; and marbled, in some points, with portions of a slate colour. Another cyst, of the same kind, but much smaller, in the posterior inferior part. Left lung loaded with blood, and very lacerable, posteriorly; otherwise, its slight adhesion excepted, sound, and crepitous. Not one tubercle existed.—*Brain* healthy.—*Abdomen*. Gastric mucous membrane thickened, and covered with many red points. Parietes of small intestine generally loaded; here and there variously sized red or violet patches on its

* These consisted of the blood-vessels and bronchial ramifications, which had resisted the ravages of the suppurative process.

mucous membrane; redness and thickening most strongly marked at the termination of the ileum, its valve, and commencement of the rectum, (colon?) and diminishing in the ascending colon; rest of the large intestine pale. Great quantity of thick saffron-coloured bile in the small intestines. Liver very much enlarged; its colour fawn-yellow, bordering on grey, and granulations larger than usual. Gall-bladder full of saffron-coloured bile. Three fibrous tumours in the parietes of the uterus; one of the volume of a fist; the other two of an egg, degenerated and exhibiting, in several points, a carcinomatous character. Bladder thickened, contracted, and containing pus; its mucous membrane red, and exhibiting, as it were, a papillated surface.

A second case, occurring in a woman similarly circumstanced, resembles the former too closely to require description equally minute. In this instance, however, the diarrhœa had only continued three days, when, on sudden cold, pneumonia supervened: hence no traces of enteritis were discovered. There existed a bilious complication; and, while only transient relief resulted from antiphlogistic treatment, a vomit produced decisive amelioration. Perfect coincidence was observed between the symptoms displayed during life and the organic changes after death. The sound of the thorax was invariably obscure in its superior part, right and left: both lungs were adherent. The summit of the right enclosed a large cavity containing pus, and nearly resembling that described in the last case. The superior part of the left, hard, compact, like fat liver; the pus combined with it, and not forming any cyst. Delirium came on towards the close of the disease: there was arachnitis and separation of the membrane from the pia mater by effused serum. On the 12th day, after sensible amendment, the pulse became feeble; tonics were given; and at night expectoration was suppressed, and all the symptoms aggravated. Next day, the collapse gave way to excitement; tonics continued. Day after, debility aggravated, and evening exacerbation daily more severe; tongue became dry. Putrid and malignant symptoms ensued; the stomach, particularly about the greater curvature and pylorus, was highly inflamed. On discontinuing the tonics, expectoration was restored; but it was puriform*, and the patient died on the eighteenth day.

Medical varieties, uninteresting.

* Had it not been for the numerous complications of the case, and the pernicious consequences of the stimulant treatment, the purulent discharge might, in the author's opinion, have saved the patient.

SEPTEMBER.—*Bulletin of the Athenæum, &c.**Cases of Vomica, &c.* By Dr. Lallemand. (Concluded.)—

In a third case, subject, a male, aged eighteen, uncomplicated pneumonia resulted from the same causes as in the preceding examples. Antiphlogistic and derivative treatment, without tonics or stimulants, was employed, and the symptoms yielded; but reappeared on the tenth day. Local and general blood-letting was recurred to with success. On the fifteenth, pus voided in considerable quantity; and the sound of the thorax, previously obscure, became more clear. A state of convalescence immediately succeeded.

The fourth case is that of a scrofulous boy, aged fifteen. Pneumonia, from violence inflicted on the right region of the thorax. Local blood-letting, diluents. Whole right of the chest sounding obscurely. Blister, abstinence. All the symptoms daily aggravated, and death apparently impending; when, in a fit of coughing, a large quantity of offensive pus issued from the mouth and nose. After continuing for some days, the expectoration successively became yellowish, white, opaque, and, lastly, mucous. The more urgent symptoms subsided; and the boy was dismissed convalescent; still, however, exhibiting sweats and dyspnoea, with an obscure sound of the right thoracic region, probably explicable by the state of the lung surrounding the vomica, which, from the scrofulous constitution of the patient, would be with great difficulty resolved.

These cases, the author observes, prove the inaccuracy of those who deny the possibility of the formation of real abscesses in the pulmonary structure, and explain the origin and cure of all vomicae, by effusion into the cavity of the pleura, and their evacuation by a communication established across the lungs. The "*report*" of Dr. Patissier comprehends a definition of the term vomica, and a statement of the opinions of many celebrated pathological writers respecting the infrequency of its occurrence. Purulent collections in the pleura, consequent on inflammation, and evacuated into the bronchiæ by a regularly organized canal, traversing the pulmonary structure, are commonly, they contend, mistaken for real vomicae. Cases, at first sight supposed to be such, have, on closer examination, proved to be merely collections of pus enclosed between two lobes of the lungs. After analysing the preceding cases, Dr. Patissier, however, adopts the opinions of their author respecting the formation of the abscesses exhibited by the two former in the substance of the lungs. The two latter, he observes, are much less conclusive; since it is extremely difficult to determine, without dissection,

whether a quantity of pus, suddenly expectorated, proceeds from vomica or encysted abscess of the pleura. Yet, when the purulent expectoration occurs within twenty or twenty-five days from the first development of the inflammatory symptoms, as in these instances, he is inclined to think that the abscess is seated in the pulmonary structure; since nature must require a much longer time to organize the adhesions, false membranes, cyst, and canal, which characterize the pleuritic collection. Hence, in the latter, expectoration of pus cannot take place till long after that period. He also concurs with Dr. Lallemand in the opinion that, notwithstanding the obstacles opposed to the reparatory process by constant motion of the lungs, and introduction of air, the cavity of a vomica may be obliterated by adhesion of the parietes of the cyst, and perfect cicatrization ensue.⁴ From the presence of adventitious membrane in the canal of transmission, and the alterations necessarily suffered by the pleura, the process of reparation must be more difficult in encysted pleuritical abscess, than in vomica. The report concludes with a recommendation of these cases to attention, as illustrating a very obscure point of pathological anatomy.

[Foreign Retrospect to be continued in our next Number.]

PART V.

MEDICAL AND PHYSICAL INTELLIGENCE.

ROYAL SOCIETY.

THIS Society resumed its sittings on the 4th of November, by commencing the reading of the Croonian Lecture, by Sir E. Home, entitled, "A further Investigation of the component Parts of the Blood."

Nov. 11. — The reading of Sir Everard's Lecture was concluded, in which he attempts to show that smaller globules and of a different nature from those commonly supposed to exist in blood, are found in it. They were first observed by Mr. Bauer, while examining the layers composing an aneurismal tumour. They were seen in the coat in contact with the circulating blood, in the proportion of 1 to 4, compared with the larger globules; but in the other layers they were more numerous, and in that which had been first formed, they existed in the proportion of 4 to 1. Their estimated size was $\frac{1}{2500}$ of an inch. Crystals of muriate, and phosphate of soda, and sulphate of lime, were found in making a section of another aneurismal tumour: these, and the globules before mentioned, Sir E. supposes to have originally existed in solution in the serum; the globules being to be seen only after the blood has coagulated. In coagulated lymph, found during high inflammation, these globules were observed mixed with a few colourless blood globules. They were also found in great numbers in the upper firm coat of the buff of blood, while the lower and softer parts consisted chiefly of blood globules. The author proposes to call the new globules by the name of globules of *lymph*, to distinguish them from blood globules.

The author found the quantity of carbonic acid gas evolved from buffy blood under an exhausted receiver to be much less than that from healthy blood; and that by far the greatest quantity of this gas was yielded by blood drawn from a healthy person an hour after a full meal. Both lymph globules and blood globules were found in the mucus of the pylorus and duodenum. In chyle the size of the globules is various. Mr. Bauer supposes that the blood globules are formed in the mesenteric glands, with the exception of the colouring matter, which they obtain on exposure to air in passing through the lungs.

The Bakerian Lecture, by Mr. Brande, was next commenced reading—"On the composition and analysis of the inflammable gaseous compounds resulting from the destructive distillation of coal and oil, with some remarks on their relative heating and illuminating powers."

Nov. 18.—The Bakerian Lecture was concluded. In the first part of this lecture Mr. Brande attempts to show that no other compound of carbon and hydrogen can be demonstrated to exist than that usually called olefiant gas, consisting of one part of carbon and one of hydrogen; and that what is usually called carburetted hydrogen, is in fact a mixture of hydrogen and olefiant gases. The truth of his opinion is supported by the author by various experiments on gases obtained from coal, oil, and other substances. He supposes that many of the products obtained by destructive distillation of coals, &c. are of secondary formation, and result from the mutual action of the gases first formed. A peculiar compound of hydrogen and carbon is thus formed, by passing pure olefiant gas through a tube containing red-hot charcoal, similar in appearance to tar, but possessing the properties of a resin. Sulphuret of carbon was formed by the mutual action of sulphuretted and carburetted hydrogen. Some new modes of analysing gaseous mixtures were also pointed out in the first part.

The second part related to the illuminating and heating powers of coal gas and of oil gas. The illuminating powers of olefiant oil and coal gases, are stated to be to one another nearly as 3, 2, and 1; and the ratio of their heating powers to be nearly similar, that from coal being greatest, and that from olefiant gas the least. In this part the advantage in point of illumination, by employing many jets in the burners (instead of one), placed so near each other that the different flames can unite, was illustrated by experiments.

The lecture concluded with comparative experiments on terrestrial and solar light. Gas lights, even when concentrated so as to produce a sensible degree of heat, do not affect the colour of muriate of silver, nor a mixture of chlorine and hydrogen gases; while the concentrated brilliant light of charcoal, submitted to galvanic action, not only affects the muriate, but causes these gases to unite—sometimes with explosion. Concentrated moonlight did not affect either of these tests.

Nov. 25.—Dr. Carson's paper, On the Elasticity of the Lungs, was concluded. After some introductory remarks, comprehending a popular description of the thorax and its contained viscera, the author proceeded to observe that the influence of the elasticity of the lungs on the circulation of the blood and on respiration, has been overlooked by physiologists. To ascertain the real force of the elastic power of these organs, Dr. C. connected with the tracheæ of several animals a glass syphon, so placed as to admit of pressure being exerted on the lungs by a column of water contained in it. An opening was then made into the cavity of the chest on both sides, and the height of the column of water in the tube was considered as equivalent to the pressure exerted upon it by the elastic power of the lungs. From experiments conducted in this manner upon the lungs of the ox, Dr. C. considered it as clearly ascertained that in this animal the resilience of the lungs is more than equal to a column of water a foot and a half high.

In a still more satisfactory experiment made upon the lungs of a dog, the column stood at ten inches.

The paper was concluded with some remarks upon artificial respiration, and on the best means of ascertaining the actual quantity of air contained in the lungs.

Nov. 30.—On this day the annual meeting for the election of officers for the ensuing year took place, when the following noblemen and gentlemen were elected:—

President.—Right Hon. Sir Joseph Banks, Bart. G. C. B. &c.

Secretaries.—W. T. Brande, Esq. and Taylor Combe, Esq.

Treasurer.—Davies Gilbert, Esq.

There remained of the old Council, Right Hon. Sir J. Banks, Bart.; W. T. Brande, Esq.; Taylor Combe, Esq.; Davies Gilbert, Esq.; Major-General Sir James Willoughby Gordon, K.C.B.; Sir Everard Home, Bart.; Sir Thomas Staunton, Bart.; William Hyde Wollaston, M.D.; and Thomas Young, M.D.

There were elected into the Council, William Blake, Esq. A.M.; John Earl Brownlow; Charles William Earl of Charleville; Alexander Crichton, M.D.; Sir Benjamin Hobhouse, Bart.; Captain Henry Kater; Daniel Moore, Esq.; Right Hon. Sir John Nicholl, Knt.; the Rev. Thomas Rackett, M.A.; and the Right Hon. C. Yorke.

ROYAL ACADEMY OF SCIENCES AT PARIS.

An Analysis of the Labours of the Royal Academy of Sciences during the Year 1818.

An Historical Essay upon the Services and Scientific Works of Gaspard Monge; by M. C. Dupin, a pupil of Monge, and member of the French Institute.—“G. Monge was born at Beaune in 1746. His progress was such that they gave him the office of Professor of Natural Philosophy in the college at Lyons, although he had only begun to study it the year before. Returning to Beaune in the vacation, he set about the survey of that town. As he had not proper instruments for that purpose, he made some himself. He dedicated his work to the administration of his native place, and they recompensed the young author, as far as the limited finances of the place would allow. A lieutenant-colonel of the engineers, who happened to be at Beaune, obtained for Monge an appointment as draughtsman and pupil in the *Ecole d'Apparailleurs et de Conducteurs des Travaux des Fortifications* (equivalent to our Drawing School in the Tower). As he was an excellent draughtsman, his manual dexterity was alone considered. He, however, already knew his own strength, and saw with great indignation the value that was exclusively bestowed on his mechanical talents. ‘I was tempted,’ said he, ‘a long time afterwards, a thousand times, to tear my drawings, out of spite for the value set on them, just as if I had been good for nothing else.’ The director of the school ordered him to calculate a particular case of *defilement*, an operation in which the relief and ground-work of fortifications is to be combined together with the smallest possible charge, but so that the defenders may be sheltered from the shot of the assailants. Monge abandoned the method hitherto followed, and discovered the first general geometrical method that was known for this important operation.—By applying, at different times, his mathematical talents to questions of a similar nature, and always generalizing his manner of conceiving and working them, he, at last, formed a scientific work on the subject; this was his *Descriptive Geometry*.—For more than twenty years he found it impossible to show to the corps stationed at Mezieres the application of his geometry to carpentry. He was more successful in its application to

masonry; he studied with great care the methods hitherto employed, and simplifying them, he brought them to perfection by his geometry.

“ His scientific works caused him to be appointed Acting Professor of the Mathematics and Natural Philosophy, in the room of Nollet and Bossut; afterwards he was appointed Honorary Professor: he then turned his views toward the study of many phenomena of nature; he made numerous experiments upon electricity; he explained the phenomena which arise from capillary attraction; was the creator of an ingenious system of meteorology; he examined the composition of water, having made that great discovery without having any knowledge of the experiments which had just before been made by Lavoisier, Laplace, and Cavendish. He did not content himself with explaining to his pupils in the theatre of the school the theories of science and their application: he loved to conduct his disciples wherever the phenomena of nature, or the works of art, could render these applications apparent and interesting. He communicated his own ardour and enthusiasm to his pupils, and changed those observations and researches into desirable pleasures, which would have appeared to be a disagreeable study in the confinement of a school, and clothed only in abstract ideas.

“ In order to bring Monge to Paris, he was appointed in 1780 assistant to Bossut, Professor of the Hydrodynamic Course, instituted by Turgot. That he might reconcile the duty of the two places which he now held, he lived six months at Mezieres, and six months at Paris. The same year he was admitted into the academy of sciences; and on the death of Bezout in 1783, he was chosen to succeed that celebrated examiner of the naval service. The Marquis de Castries invited Monge several times to write another elementary course of the mathematics for the youths of the naval service, but Monge always refused to comply. Bezout, said he, has left a widow with no other fortune than her late husband's works, and I do not wish to take away the bread from the widow of one who has rendered important services to science and to his country. The only elementary work which Monge published was his *Traité de Statique*; and, with the exception of a few passages in which greater rigour might be desirable, the *Statique* of Monge is a model of logic, clearness, and simplicity.

“ At that period when the public distress called forth all the useful talents and courage of the superior classes to the assistance of their country menaced with invasion, Monge was created Minister of the Marine. He did every thing he could to keep those men who were distinguished for their merit or bravery in France. He even descended to entreaties to procure the continuation of Borda's services, and he had the happiness to succeed. He was one of the most active men in those scientific services which the preservation of the state required. The construction of the new grinding machines erected in the powder mills at Grenoble was his, and also the drilling machines constructed upon the barges of the Seine. He spent his days in giving instructions and superintending the workmen, and his nights in writing his treatise on the casting of artillery, a work designed for the use of directors of foundries, and for workmen.

“ It was in his course at the Normal school that he first gave his lectures of descriptive geometry, the secrets of which he had not been able to reveal sooner. Another establishment, which had been originally conceived before the Normal school, but which, having had more attention paid to it by the inventors, followed it in the order of execution, realized some part of the hopes which had been looked for in vain on the establishment of the first Encyclopedic school that had been opened in France. Monge brought into it his long experience at Mezieres, and joined to this new and profound views; he drew up the plan of study, marked out their succession, and proposed scientific methods of execution. Out of four hundred pupils originally placed in the Polytechnic school, fifty of the choicest were col-

lected into a preparatory school. Monge was almost the only one that taught these pupils. He remained the whole of the day among them, giving them, in turn, lectures on geometry and analysis;—exhorting them, encouraging them, inflaming them, with that ardour, that kindness, that impetuosity of genius, which made him explain to these pupils the truths of science with an irresistible force and charm. In the evening, when these labours were finished, Monge began others of a different kind; he wrote the sketches which were to serve as a text to his next lectures, and the next day he was to be found along with his pupils at the very moment of their meeting. The good nature of Monge was neither the cold calculation of the sage, nor even the effect of education; it was a simple benevolence which arose from his happy organization. He was born to love and to admire. His admiration was excessive, like his love; in consequence of which he did not always keep within the limits that cold and unfeeling reason would have prescribed.—As he was the father of his pupils in the school, so he was in camp the father of the soldier.

“In traversing Italy to collect the statues and pictures that had been ceded to France, Monge was struck with the singular contrast between the Grecian monuments of the arts and those of the Egyptians, transported by Augustus and his successors to the shores of the Tiber. The comparative characters of the ancient monuments were the frequent subject of conversation between the conqueror of Italy and the commissary who collected for his country the most precious fruits of victory. Monge conceived the idea of extending the domain of history beyond the fabulous ages of Greece; of learning with the certainty of a geometer what were the labours of the ancient sages of the East; of discovering afresh, by the contemplation of their monuments, what had been the processes of their arts, the usages of their public life, the order and the majesty of their feasts, and of their ceremonies.

“Monge, charged by the general-in-chief to carry to the directory the treaty of Campo Formio, was a short time afterwards placed in the first rank of the literary men who composed the commission of sciences and arts which were to accompany the expedition to Egypt. He was the first that was appointed President of the Institute of Egypt formed on the model of the French Institute. He visited the pyramids twice, he saw the obelisk and the grand ruins of Heliopolis, he studied the remains of antiquity scattered round Cairo and Alexandria. It was during a tedious march in the middle of the desert that he discovered the cause of that wonderful phenomenon known by the name of *mirage*. At the time of the revolt of Cairo there were in the city only a few detachments of the troops. The palace of the Institute was guarded by the members themselves; and it was proposed to sally out and join the main guard; but Monge and Berthollet, considering that the palace contained the books, manuscripts, plans, and antiquities, which were the fruits of the expedition, maintained that it was the duty of the members to guard this precious deposit, and that they ought to defend that treasure at the hazard of their lives.

“Monge presided in the commission of the sciences and the arts in Egypt; he contributed by his counsels to form that wise plan, and by arranging and proportioning the various parts, endeavoured to execute it in the utmost perfection.

“Monge had an inimitable method of exposing the most abstract truths, and of rendering them plain by the language of action. Nevertheless it was only by combating with nature that he was able to become an excellent Professor: he spoke with difficulty, and almost stammered; the prosody of his discourse was vicious, for he lengthened some syllables falsely, and shortened others. His physiognomy, naturally calm, exhibited the appearance of meditation; but as soon as he spoke, he appeared quite another

man; his eyes acquired a sudden brilliancy; his countenance became animated, and his figure seemed as if inspired.

"Monge, debilitated by age, was at last the victim of an imagination which, according as the times were adverse or prosperous, carried him beyond either just fears or just hopes. His last moments were without last thoughts—without last effusions—without any adieu: he sunk in silence—without agonies—without terror—and without hopes. The rules of the service did not allow the generous youths to deposit at the time of his funeral the token of their remembrance and their regret upon the tomb of their old benefactor; but on the dawn of the day after the funeral, the pupils went silently to the place of burial, and fixed upon it an oaken bough, to which they hung a crown of laurel. Twenty-three former pupils of the Polytechnic School, residing in the town of Douay, joined together with one accord, and wrote to M. Berthollet to beg he would superintend the erection of a monument to be built at the expense of the former pupils of the Polytechnic School, in honour of Gaspard Monge. M. Bertrand, Notary, No. 46, Rue Coquillière, Paris, is charged with the receipt of the subscriptions. The pupils who have studied architecture are invited to propose their plans for Monge's monument, and to send them, with an estimate, to M. Bertrand."

This notice is terminated by a list of pupils who have already subscribed. The second part contains a catalogue and analytical review on Monge's writings, not only of those which he published separately, but also of those which are inserted in the *Memoirs of the Academy*, or of the Polytechnic School, and in many other collections. All these works are well known, and duly appreciated; we have extracted in preference the slighter anecdotes, those which, exhibiting, as it were, the mind of Monge, explain the attachment of his former pupils, and the regrets of his fellow labourers.

Extract of a Letter from DR. THOMAS FORSTER, dated East Grinstead, January 13, 1820.

"Two cases of violent and well-determined small-pox occurred this month. One in a person who had previously had the cow-pox in a very unusually violent degree, and another in one who had before had a very marked case of small-pox. The writer of this note has before him, on the record of other respectable persons, several more such cases."

TO THE HONOURABLE THE PRESIDENT OF THE ROYAL
COLLEGE OF PHYSICIANS.

SIR,—I AM persuaded that I am permitted to consider and to address you, in your honourable and distinguished official situation, as the Guardian of the public interests, in that Art, which, having for its object the alleviation of human suffering, is in general peculiarly marked, in the practice, by benevolence of temper and disposition, and having suffered considerable individual inconvenience from circumstances, which appear to me to be at variance with that disposition of mind, I will not violate the benevolent principle, by any observation not rendered necessary, in my opinion and judgment, to the public perception and knowledge of useful practical truth.

A few months since, I discovered the means of producing a green preparation of powder of senna, and having supplied many Chemists and Practitioners with this medicine, I have, in consequence, been exposed to a charge, which has been industriously propagated, of having produced the green appearance, by means of colouring matter, and not as an effect of simply developing the properties of the leaf of senna. If the charge

were calculated to affect me only upon a question of *profit and loss*, I might be induced to bear the injury in silence, but the green preparations of senna having been produced by labour and attention, and being a more perfect and effective preparation of that medicine than has hitherto been produced; I am bound, as an act of public duty, to declare, that my preparation of senna (green) is wholly free from any other admixture than some portion of the substance which is found with the leaf when imported.

The specimens of powder of senna, which the Royal College have been pleased to receive from me and to consider as standard samples, are of this description.

I avail myself of this occasion, to state, that my professional practice, in the early part of my life, having led me to reflect upon the possibility of improvements in some preparations of medicine, I have, through the course of several years, devoted my leisure to that object; and having been fortunate in ascertaining some facts, the importance of which is attested by the opinion and judgment of many of the most respectable members of the Profession, I am desirous of imparting to the Profession, generally, and particularly to the Student in medicine, such information as will lead to the more accurate knowledge and discrimination of perfect, from less perfect drugs and medical preparations, and will direct the inquirer to the modes by which I attain the several results.

I have lately been permitted to supply the preparations and other materials for a Museum of *Materia Medica*, at the Royal Hospital of St. Thomas, and I am allowed to exhibit, at that Establishment, the perfect and imperfect specimens and preparations of medicines, arranged in series for the direction of the judgment, in this important branch of medical science, as well as the use of the laboratory, which has been constructed upon the plan of my own, for any purpose of explanation or illustration, when required for those purposes.

Reserving to myself the privilege of choosing my own time for communicating the several particulars which I may wish to explain and which must necessarily, from time to time, depend upon the maturity of my own judgment; I have the honour to remain,

SIR,

With great respect,

Your faithful and obedient servant,

RICHARD BATTLE.*

Fore Street, Cripplegate,
Jan. 17, 1820.

* The announcement which the above Letter contains, will, we conceive, necessarily excite a considerable interest among the members of the Profession. The Proprietors of the *REPOSITORY* have, therefore, with this feeling, readily acceded to the proposal of Mr. Battley, of making their Publication a vehicle of his further communications. It is scarcely necessary to say, that accuracy, both in respect to the selection of simples and preparations of compounds, can never be too much attended to in the practice of medicine.—ED.

A METEOROLOGICAL TABLE,

From 21st of NOVEMBER to 20th of DECEMBER, 1819,

KEPT AT RICHMOND, YORKSHIRE.

D.	Barometer.		Therm.		Rain Gauge.	Winds.	Weather.
	Max.	Min.	Max	Min.			
21	29	12	29	08	38	28	10 NW.. 1 Cloud.. 2 Rain.. 4 Starl...
22	29	31	29	22	34	26	WNW.. 1 Sun....
23	29	46	29	37	33	27	NW.. 1 Sun....
24	29	65	29	63	39	30	NW.. 1 Sun...
25	29	44	29	37	35	27	W. 1 Sun...
26	29	48	29	45	34	30	W. 13 Cloud.. 2 Sun.. 4 Moon..
27	29	53	29	43	36	28	WNW. 1 Sun....
28	29	24	29	15	39	32	13 SW..SE.. 1 Sun.... 2 Cloud... 4 Rain..
29	29	27	29	20	42	35	45 SE. 1 Cl... 2 Mist... & Rain....
30	29	24	29	09	48	38	23 SSE.. 1 Rain...
1	29	53	29	39	44	37	06 SW. 1 Mist... 2 Sun... 4 Rain.
2	29	61	29	59	44	34	SW. 1 Sun...
3	29	69	29	22	40	34	15 SE..SW.. 1 S..&Sh.. 2Sh.. 4M..&Sn..
4	29	72	29	46	40	36	12 SE..NW.. 14 Rain.. 23 Cloud...
5	29	80	29	79	39	36	07 NE.. 1 Sun. & Show.
6	29	85	29	81	38	35	ENE. 1 Cloud... & Show.of Snow.
7	29	84	29	81	38	32	05 E.. 134 Cl... & Show. 2 Sun.
8	29	84	29	72	33	25	05 E.. 1 Cl... 3 S. 4 Sh. of Sn. & st..
9	29	72	29	64	30	19	WbN. 1 Sun....
10	29	61	29	54	26	19	WbN. 1 Sun...
11	29	54	29	50	28	24	W. 1 Show. of Snow. 2 Sun...
12	29	50	29	45	30	25	WbN.. 1 Sun..
13	29	47	29	24	35	27	NW.. 1 Snow. 2 Sun...
14	28	94	29	91	34	23	SW.. 1 Show. of Sn. 2 S.. 4 Cl..
15	29	39	29	18	33	27	W.. 1 Sun..
16	29	55	29	52	32	25	Melt.s. W.. 1 Sun..
17	28	99	28	79	37	31	1 32 SE.. 1 Snow.... 2 Rain....
18	29	27	29	18	42	38	02 SE..SW.. 1 Rain. 2 Sun..
19							
20							

The quantity of rain during the month of November was 2 inches 12-100ths.

Observations on Diseases at Richmond.

The disorders under treatment were, Cynanche tonsillaris, Diarrhœa, Dyspepsia, Febris catarrhalis, Febris continua, Gastrodynia, Gonorrhœa, Hæmoptœ, Pneumonia, Phthisis pulmonalis, Rheumatismus, Scarlatina anginosa, and Vermes.

As I was under the necessity of going to Edinburgh on the 19th ult., on account of the severe illness of my son, who had gone thither to study medicine, and whose disorder ended in his death on the 26th, I could not get home till the 31st, therefore the present table is incomplete, and there must necessarily be a chasm in the next.

CHRISTOPHER BOWES.

Richmond, Jan. 10, 1820.

A METEOROLOGICAL TABLE,

From 21st of DECEMBER, 1819, to 20th of JANUARY, 1820.

KEPT AT RICHMOND, YORKSHIRE.

D.	Barometor.		1 therm.		Rain Gauge.	Winds.	Weather.	
	Max.	Min.	Max	Min.				
21					Quantity of rain, and maximum and minimum of the thermometer, during the Reporter's absence.			
22								
23								
24								
25								
26								
27								
28								
29								
30								
31			50	14		1 30		
1	29	18	29	16	25	19	W.	1 Sun....
2	29	23	29	18	26	19	Calm NW.	1 Cloud... 4 Moon...
3	29	60	29	54	28	20	W..	1 Sun....
4	29	66	29	63	30	21	WSW.	1 Cloud... 2 Sun..
5	29	67	29	59	34	29	SW..	1 Cloud...
6	29	92	29	77	36	30	WNW.	1 Cloud...
7	30	22	30	16	32	26	SE.	1 Snow. 2 Cloud...
8	30	40	30	36	30	26	NE.	1 Show. of snow. and Sun..
9	30	20	30	14	34	25	Melt. s. NW..	1 Sh. of sn. and S.. 4 Snow...
10	29	92	29	63	36	34	68 N..	1 Snow.. 2 Cloud... 4 R..
11	29	78	29	48	37	31	18 NNW.	134 Snow. and Rain.. 2 S..
12	29	85	29	74	33	29	NE.	1 Sun..
13	29	88	29	88	33	23	W.	1 Cloud.. 2 Sun..
14	29	62	29	42	33	23	WbN.	1 Sun...
15	29	42	29	38	35	26	WNW.	1 Sun.. 3 Cloud.. 4 Starl....
16	29	22	29	22	33	27	W..	1 Sun..
17	29	23	29	20	30	19	W.	1 Cloud.. 2 Sun..
18	28	89	28	44	31	21	Melt. s. NNW.	1 Sun.. 4 Snow....
19	29	06	28	77	34	22	63 N.	1 Snow. 2 Sun. 4 Starl...
20	29	09	29	09	30	21	NW. Calm.	1 Sun... 4 Cl.. and Snow.

The quantity of rain during the month of December was 3 inches 14-100ths.

Observations on Diseases at Richmond.

The disorders under treatment were, Catarrhus, Cephalalgia, Cynanchotonsillaris, Dyspnoea, Febris catarrhalis, Gastrodynia, Icterus, Obstipatio, Odontalgia, Pneumonia, Podagra, Rheumatismus, Scabies, Scarlatina anginosa, and Scrofula.

THE METEOROLOGICAL JOURNAL,

From the 20th of DECEMBER, 1819, to the 19th of JANUARY, 1820,

By Messrs. HARRIS and Co.

Mathematical Instrument Makers, 50, High Holborn.

D.	Moon	Rain	Therm.				Barom.				De Luc's Hygrom.		Winds.		Atmo. Variation.		
											Dry.	Damp.					
20		07	55	57	47	29	68	29	80		28	18	WSW	W	Rain	Clo.	Sho.
21			48	51	51	30	00	29	75		13	16	N	WSW	Clo.		
22			53	54	44	29	74	29	62		20	20	W	WNW	Fine	Fine	Clo.
23	☾		45	46	36	29	33	29	43		15	10	NW	W	Fine		
24			39	42	32	29	40	29	38		7	5	WSW	NNE	Clo.	Fine	Fine
25			36	40	29	29	43	29	50		7	6	NNE	NNW	Fine	Clo.	Fine
26			32	34	31	29	55	29	53		7	8	W	SE	Fine	Clo.	Fog
27			33	34	31	29	50	29	52		9	8	E	ESE	Fine	Clo.	Clo.
28			35	35	28	29	53	29	57		10	11	ESE	ENE	Fine	Sn.	Clo.
29			30	31	26	29	70	29	65		10	9	N	W	Fine		
30			29	32	30	29	55	29	45		10	9	W	WSW	Clo.	Fine	Clo.
31	☉		31	33	23	29	40	29	41		10	10	SSW	ESE	Fine	Clo.	Fine
1			25	27	25	29	50	29	68		9	10	E	W	Fog	Fog	Fine
2			31	36	32	29	60	29	41		13	18	SW	SSW	Clo.	Fine	Clo.
3			35	37	28	29	61	30	05		17	15	N	WNW	Sn.	Clo.	Clo.
4			30	33	22	30	10	30	11		13	12	W	W	Fog		
5			24	32	27	30	13	30	17		11	13	W	WNW	Fog	Clo.	Clo.
6			32	33	33	30	14	30	20		13	20	W	NE	Fog	Clo.	Sleet
7			34	34	25	30	30	30	50		15	12	E	SE	Clo.	Fine	Fine
8	☾		28	29	23	50	58	30	66		10	11	E	NE	Fine	Fine	Sn.
9			27	30	23	30	70	30	40		11	13	NE	N	Sn.	Fine	Sn.
10			26	28	26	30	45	30	20		11	13	NE	E	Clo.	Sn.	Fine
11			29	31	26	30	00	29	75		14	17	SW	NE	Sn.	Sn.	Clo.
12			27	28	21	30	10	30	22		12	11	E	ENE	Clo.	Sn.	Fine
13			24	28	24	30	18	30	22		10	12	NE	NE	Fine	Sn.	Sn.
14			26	28	15	30	24	30	04		11	10	E	NE	Sn.	Fine	Clo.
15	☾		19	21	25	29	75	29	74		9	14	SE	N	Fine	Clo.	Fog
16			27	29	25	29	72	29	80		16	15	NNW	W	Fine	Fine	Fog
17			29	34	29	29	71	29	52		18	16	W	ESE	Clo.	Clo.	Fine
18			31	35	37	29	50	29	10		17	27	ENE	SW	Sn.	Fine	Rain
19			47	49	32	29	00	29	14		32	24	WSW	NNE	Clo.	Clo.	Fine

Rain Gauge frozen.

A REGISTER OF DISEASES

Between DECEMBER 20th, 1819, and JANUARY 19th, 1820.

DISEASES.	Total.	Fatal.	DISEASES.	Total.	Fatal.
Abortio	12	1	Gonorrhœa <i>pura</i>	9	
Abscessio	7		Hæmoptœ	11	1
Amaurosis	1		Hæmorrhœis	12	
Amenorrhœa	9		Hemiplegia	4	1
Anasarca	22	2	Hepatalgia	3	
Aphtha <i>lactentium</i>	6		Hepatitis	20	1
Apoplexia	2	2	Hernia	4	
Ascites	4		Herpes <i>Zoster</i>	1	
Asthénia	7		—— <i>labialis</i>	1	
Asthma	80	12	—— <i>præputialis</i>	3	
Atrophia	2		Hydrocele	1	
Bronchitis <i>acuta</i>	14	2	Hydrocephalus	9	5
—— <i>chronica</i>	10		Hydrops Ovarii	1	1
Bronchocele	1		Hydrothorax	2	
Calculus	4		Hysteria	6	
Cancer	2		Icterus	6	
Carbunculus	3		Ischias	2	
Cardialgia	8		Ischuria	3	
Carditis	3		Lepa	1	
Catarrhus	91	1	Leucorrhœa	5	
Cephalalgia	20		Lichen <i>simplex</i>	1	
Chlorosis	1		Mania	4	
Chorea	2		Melancholia	4	
Cholera	4		Menorrhagia	14	1
Colica	7		Miliaria	2	
—— <i>Pictonum</i>	1		Morbi Infantiles*	40	2
Convulsio	1		—— Biliosi*	17	
Coryza	1		Nephritis	2	
Cynanche <i>Tonsillaris</i>	12		Obstipatio	10	
—— <i>Parotidea</i>	7		Odontalgia	13	
Diabetes	2	1	Ophthalmia	13	
Diarrhœa	26	1	Otalgia	1	
Dysenteria	9	1	Palpitatio	5	
Dyspepsia	34		Paracusis	1	
Dyspnœa	14		Paralysis	10	
Eczema	2		Paraplegia	1	
Enteritis	4		Paronychia	6	
Entrodynia	5		Pericarditis	1	
Epilepsia	2		Peripneumonia	12	
Epistaxis	4		Peritonitis	8	
Erysipelas	7		Pernio	15	
Erythema <i>nodosum</i>	1		Pertussis	29	3
Febris <i>Intermittent</i>	7		Phlogosis	4	
—— <i>catarrhalis</i>	21		Phthisis Pulmonalis	41	18
—— <i>Typhus mitior</i>	15	3	Physconia	1	
—— <i>Synochus</i>	35		Plethora	1	
—— <i>Puerpera</i>	3		Pleuritis	24	
—— <i>Remit. Infant.</i> ..	3		Pleurodyne	8	
Fistula	1		Pneumonia	21	1
Gastrodynia	12		Podagra	3	

DISEASES.	Total.	Fatal.	DISEASES.	Total.	Fatal.
Polysarcia	1		Scrofula	5	
Porrigo <i>decalvans</i>	2		Spasmi	1	
— <i>scutulata</i>	1		Stricture	1	
— <i>favosa</i>	4		Strophulus <i>confertus</i>	2	
Prolapsus	2		Syphilis	18	
Prurigo <i>senilis</i>	3		Tabes Mesenterica	1	
Psoriasis <i>guttata</i>	1		Vaccinia	12	
Pyrosis	3		Varicella	6	
Rachitis	1		Variola	30	6
Rheuma <i>acutus</i>	18		Vermes	9	
— <i>chronicus</i>	53		Vertigo	8	
Rubeola	29	3	Total of Cases	1245	—
Scabies	85		Total of Deaths	164	
Scarlatina <i>simplex</i>	17				

* *Morbi Infantiles* is meant to comprise those Disorders principally arising from dentition or indigestion, and which may be too trivial to enter under any distinct head; *Morbi Billiosi*, such Complaints as are popularly termed *billous*, but cannot be accurately classed.

Observations on Prevailing Diseases.

SINCE the REPOSITORY has been in our hands, we believe it has not been our lot to present so large a register of diseases as we do this month: and the reader will remark that affections of the pulmonary organs still continue to be the most numerous; the extraordinary number of 85 being placed against asthma, and 91 appended to catarrh.

There is a fatal case, it will be observed, of abortion; and our Reporter, Mr. Uppom, who transmits it, accompanies it with the following statement:—

“The fatal case of abortion died at the time of quickening. On inspection after death, the lungs were found in a very hardened state, and greatly diseased, having very many tubercles.”

The table of Mr. Furnivall is accompanied by the following report:—

“The fatal case of hydrops ovarii occurred in a person aged seventy-four. She had been gradually increasing to an immense size for about a year and a half. She was tapped twice before her death; the first time about six weeks, the second a few days before she died. The fluid was so extremely viscid and gelatinous, that it was impossible to evacuate the whole. About fifteen quarts came away at the first operation, and ten at the second. Each time there appeared to remain nearly as much more. On opening the body, the right ovary was increased so much in size as to fill the whole cavity of the abdomen. It adhered to the liver, the stomach, and the transverse arch of the colon. It contained about eight quarts of a gelatinous fluid, so viscid that it would not flow even from the wide opening that was made with the scalpel. There were also slight vestiges of peritoneal inflammation.”

“Inflammatory attacks of the pulmonic viscera, and several cases of fever, have required copiously repeated venesection, more so than the Reporter ever recollects at this season of the year. Success, however, has uniformly attended the practice.”

Messrs. Parkinson and Son favour us with the annexed statement:—

“Cases of typhus mitior have continued to occur. In one family, in which four were attacked, the first sunk from want of sufficiently early aid. In two cases, about the tenth or twelfth day, carbuncles occurred on the nape of the neck. Carbuncle occurred in another instance, without

previous fever having been complained of. Asthenic symptoms have too frequently been witnessed among the poor. Inflammation of pleura and of the lungs has also frequently occurred. In one district, in which a fever ward has been established, out of forty-six cases of fever, one only has been lost, who had been reduced to a very low ebb before admission."

We still have cause to lament the frequency, and in many instances fatality, of small-pox. One well marked case has within the month occurred of variola.

MONTHLY CATALOGUE OF BOOKS.

Mr. Loddiges, of Hackney, has just published the Thirty-Second Number of his Botanical Cabinet, for December 1819. It contains Coloured Figures of *Passerina spicata*, *Hedysarum carneum*, *Acacia nigricans*, *Ixora grandiflora*, *Primula minima*, *Aspalathus chenopoda*, *Valeriana montana*, *Anthyllis erinacea*, *Erica pyramidalis*, and *Arum triphyllum*, being the 320th Plant figured in this Work.

Preparing for Publication.—Observations on the Total Inefficacy of Mr. Hunter's Theory of Life, to support the Doctrine of the Separate Nature of the Human Soul, and on the Necessity of receiving by virtue of Faith alone, Doctrines Indefensible by any Chain of Physical Argument. Together with Brief Remarks on the Genuine Doctrine and Excellence of the Catholic Religion, as embraced and practised by our Forefathers. By Vindex Catholicus.

Medico-Chirurgical Transactions. Published by the Medical and Chirurgical Society of London. Vol. X. Part 2. 8vo.

A Treatise on the Operation for the Formation of an Artificial Pupil, &c. By G. J. Guthrie, Member of the Royal College of Surgeons in London, &c. 8vo.

Letters illustrating the Diversity, Cause, and respective Importance of Disorders in the Chest, especially Coughs, Consumption, and Asthma. By J. Wilson, M.D.

A Treatise on Adulteration of Food, and Culinary Poisons, &c. &c. By F. Accum. 12mo.

Observations on Strictures of the Rectum, &c. By W. White, Member of the College of Surgeons, London, &c. &c. Third Edition, 8vo.

Inglis's Companion to Culpepper. 12mo.

The Dissector's Manual. By J. H. Green, Demonstrator of Anatomy at St. Thomas's Hospital. 8vo. With Plates.

NOTICES TO CORRESPONDENTS.

Communications have been received this month from Dr. Conquest, Dr. Desanctis, Mr. Booth, Mr. Sutcliffe, and Mr. Curtis.

* * * *Communications are requested to be addressed (post paid) to Messrs. T. and G. UNDERWOOD, 32, Fleet Street.*

THE
LONDON MEDICAL
REPOSITORY.

No. 75. MARCH 1, 1820. VOL. XIII.

PART I.

ORIGINAL COMMUNICATIONS.

I.

Practical Remarks on Obstetric Instruments; with Suggestions for the Employment of Belladonna in some Cases of Protracted Labour. By J. T. CONQUEST, M.D., F.L.S., Member of the Royal College of Physicians of London, Lecturer on Midwifery, &c. &c.

NOTHING can be more gratifying and instructive to the philanthropist, or to the man of science, than those comprehensive retrospects by which he causes to pass before him, in close review, the origin and progressive advancement of important inventions; and by which he connects, in his thoughts, the early dawn, and present improvement of subjects conducive to the welfare of his fellow-creatures. *Midwifery* appears to be entitled to such a distinction: for though it has not attained, in its principles and practice, to geometrical certainty, or to a mechanical problem, yet it has, perhaps, approached nearer to perfection than any other branch of medical science.

Still, whilst contrasting the present state of this department of medicine with what it once was, and whilst cheered by the triumph of knowledge over ignorance, of truth over prejudice and error, of philosophical demonstration over wild and ridiculous hypothesis, and of experimental research over fanciful and useless theory, we must not forget that there

yet remains much in structure, function, and disease, so obscure, as to leave a large uncultivated field open for the exertion of genius and industry.

I hesitate not, therefore, frankly to avow my solicitude and determination (at least to attempt) to do something towards the perfection of one of the most interesting and important branches of the medical Profession: but let it be most distinctly understood, that I do not assume to myself the merit of inventing the obstetric instruments about to be described: I merely venture to suggest to the candid consideration of my professional brethren some alterations which appear to me, and which are considered by several respectable men, to be important practical improvements of instruments which have been already long in use.

These proposed alterations have not been sketched in the closet, but have had their origin at the bedside of patients who were delivered with difficulty, and whose sufferings were protracted in their duration, and augmented in their degree, under the employment of ordinary instruments.

It would be altogether irrelevant from the object of these pages to present even a cursory history of the modern obstetric instruments; because, independent of "*Historia Literaria et Critica Forcipum et Vectium Obstetriciorum*," Auctore Johanno Mulder, Lugduni Batavorum, there are extant several detailed accounts of the almost innumerable modifications which they have undergone since their invention. The following observations will, therefore, be purely practical, and will extend but very little beyond an explanation of the Plate which accompanies them: and as comparisons are always odious, other instruments will be noticed only as their excellencies justify a favourable allusion being made to them.

Of the Short Forceps.

The *short forceps*, which are submitted to the consideration of Accoucheurs, are characterized by the simplicity of their mechanism, and their easy adaptation to practical purposes.

The *fenestræ* are so wide* as to admit the protuberances

* We are indebted to Dr. Haighton for this very important improvement in the short forceps: and this acknowledgment affords me peculiar pleasure, because it is impossible to mention the name of that truly respectable man without expressing sentiments of the highest respect for his character. But it will be perceived that the forceps in the appended Engraving have much narrower shoulders, and are less in all their dimensions (except in their length), than those known as "Dr. Haighton's."

of the parietal bones to pass through them, by which two very important objects are secured.

The *first* is, *diminution of bulk*, because the alæ of the blades lay along the sides of the parietal bones, instead of adding to the size of the head, by being directly on, or over them, as is inevitable with Smellie's and all similarly constructed forceps, the alæ of which approximate too closely to permit any part of the cranium to pass through the fenestræ: in consequence of which, the difficulty of parturition (presuming it to consist in disproportion between the head and pelvis,) is materially augmented: and, *secondly*, instead of having the hard unyielding metal opposed to the soft parts of the mother, by which their safety is endangered, the prominences of the parietal bones passing through the fenestræ, when the forceps are well applied, will be in contact with the vagina; by which, it is obvious, there is much less probability of its sustaining injury, than from the blades of the forceps in ordinary use.

A *second* distinguishing feature of these short forceps is the curvature of the intermediate part between the blade and the handle, and which is intended to save the perinæum from pressure and laceration. It is familiar to every practical man, that in many cases which require the employment of the forceps there is great danger of the perinæum being torn, notwithstanding the utmost precaution on the part of the Practitioner. I particularly allude to those cases in which the occiput, instead of being opposed to the symphysis pubis, is found descending along the hollow of the sacrum, (or, in other words, the face opposed to the pubis); and this, it need scarcely be observed, is one of the most common causes of protracted parturition, demanding the aid of the forceps, presuming that the malposition of the head has been omitted to be rectified in the early stage of labour. If, in this malposition of parts, the forceps are well applied, the points will be directed forwards to the pubis, and the handles backwards towards the rectum, endangering, by their pressure, the safety of the perinæum. Now, the simple contrivance of a curvature in the shanks fully meets this serious evil, independent of the permission which it gives to the handles to be carried much further back than they could otherwise be, by which a firmer and more favourable hold is obtained of the child's head; and for want of which, in many instances, the points of the blades, instead of being directed over the cheeks and towards the chin, pass on, and even wound the neck of the infant. This one illustration must suffice, though others might be adduced in confirmation of the correctness of the preceding observations.

The *last*, although very far from the *least* peculiarity in these forceps, to which reference will be made, is the construction of the handle of the blade, which is usually applied *last* and *uppermost*.

It is only necessary to appeal to any one who has introduced forceps, with their convex surfaces opposed to the sides of the pelvis, the ears of the child being in their most natural situation, or from side to side, and such an one will at once acknowledge that extreme difficulty often presents itself to the introduction of the upper blade, in consequence of the bed and mattress below preventing that depression of the handle which is essential to the elevation of the point of the blade, to carry it over the vertex. Indeed, the accomplishment of this object is almost impracticable, without changing the position of the woman, or introducing the blade in the hollow of the sacrum and afterwards bringing it over the cheek. But there is a decided objection to either of these alternatives, because women, during labour, always attach importance to the most trifling departure from the ordinary mode of proceeding, so that the mere proposal of turning them on their backs, (which, by the by, is a disgusting and indelicate position, because the woman must stare her Accoucheur in the face,) or even the act of bringing the nates over the edge of the bed, usually excites considerable apprehension; otherwise I am aware that either of these changes would meet the difficulty.

With respect to the other alternative, or the introduction of the upper blade by the circuitous course of the sacrum. This expedient is often impracticable, and always difficult, because the concavity of this bone may be so completely filled up with the head of the child, so as not to allow of the requisite movement of the instrument, without the employment of an injudicious degree of power. Accoucheurs, alive to this circumstance, have long since had their levers made with reflecting or moveable handles; and it is to the latter expedient that I am indebted for the suggestion which led to the simple contrivance of a moveable handle, by a screw, which is so clearly exhibited in the engraving; and there can be now no difficulty in introducing the upper blade of the short forceps directly over the vertex, without changing the position of the patient. After the blade is fixed, of course the handle is to be screwed on, and the instrument used as any other.

Such are the forceps to which is solicited the candid attention of every medical man who is anxious to practise midwifery with pleasure to himself, and whose solieitude for the welfare of his patients prompts him dispassionately to

examine every proposal which may promise to advance so desirable an object.

Of the Craniotomy Forceps.

Although thirteen years have elapsed since I first attended the instructive lectures of Dr. Haighton, I well recollect the strong impression made on my mind by the exhibition of a pair of lithotomy forceps, a little altered, and which he represented as a very valuable substitute for the crotchet, in some cases of difficulty in parturition, arising from the impaction of the cranium at the superior aperture of the pelvis, after the operation of cephalotomia had been performed. It forcibly struck me, that these forceps, somewhat modified, possessed all the advantages of the crotchet, without having appended to them any of those flagrant defects which fully justify the exclusion of that vile and dangerous instrument from obstetric practice in all those cases which require the application of considerable extracting force to bring down the perforated cranium.

Midwifery is indebted to several continental writers for very similar suggestions; and gentlemen who have attended the lectures of Dr. Hamilton, of Edinburgh, must be familiar with Dr. Lyon's forceps, which are so strongly recommended by him. But it is to Dr. D. D. Davis that the Profession is laid under the deepest obligations for the craniotomy forceps; and I hesitate not to express my conviction, that he has conferred a lasting benefit on society, by the very great improvement which this instrument has attained under his direction. The progressive steps by which it arrived at its present improved construction are detailed in the Eighth Volume of the LONDON MEDICAL REPOSITORY, and the instrument itself exhibited in an engraving contained in the same volume. By comparing the craniotomy forceps there sketched with those represented in the engraving which accompanies these remarks, the mechanism of the two will be seen to be different, whilst their principle of action is the same. To the instrument used by me I give the preference merely on account of its simplicity, easy application, and adaptation at once to ordinary cases, and to such as require peculiar management.

Some such contrivance as this must, ere long, altogether supersede the crotchet, with every scientific Practitioner, though for some little time it (the crotchet) may be continued in use, to the manifest danger of both patient and operator. That the craniotomy forceps must soon be generally sub-

stituted for the crotchet, I infer from the following important data.

First, because with them the Accoucheur may obtain so firm a purchase or hold of the foetal cranium, as will enable him to rectify any thing that may be unfavourable in the presentation of the head; and also to regulate the degree of power which it may be necessary to employ for its extrication — two highly important advantages, which it is evident the crotchet can never confer.

Secondly, because with this instrument there is no danger of injuring the vagina, even should it slip from its hold, whilst considerable extracting power is being employed. On the contrary, not only is the crotchet much more likely to slip, but many most deplorable instances are recorded in which it has torn the soft parts of the mother, or lacerated the fingers of the Accoucheur. And,

Lastly, because it is essential to the security of the vagina and contiguous organs, that whenever the crotchet is used, the precautionary measure of keeping a hand in the passage should always be had recourse to; a precaution extremely painful to the patient and Practitioner, and one altogether needless when the craniotomy forceps are employed.

Of the Long Forceps.

It was my intention to have entered fully into another subject which is of very great importance. I allude to the substitution of an instrument well known in the shops under the name of "long forceps," for the perforator, in those cases of slight deformity at the brim of the pelvis in which, at present, the life of the child is usually sacrificed; and also in many cases of hæmorrhage, convulsions, syncope, &c. in which delivery is essential to the well-doing of the mother, although the head of the child may not have passed the brim of the pelvis.

It has already been my felicity to save *three* children; and my friend, Mr. Salmon, of Broad Street, has also saved three, whose heads were condemned to be opened, and on whom, consequently, nothing less than murder would have been committed, but for the substitution of this instrument: and although I am well aware of the prejudice entertained by the majority of medical men against their use, still I hesitate not to state it to be my decided opinion, that many children, whose lives might be preserved by the "long forceps," are annually sacrificed at the shrine of obstinacy and ignorance. But I purposely abandon my intention of

entering fully into this inquiry, because my friend, Dr. Blundell, will soon present to the Profession a detailed investigation of this interesting and important subject, when the result of his own, and of his uncle, Dr. Haighton's practice, will, I trust, materially tend to remove the prejudices, and obviate the objections which are at present opposed to the employment of the "long forceps."

I would avail myself of this opportunity to direct the attention of medical men to a very curious and not unimportant subject, inasmuch as it bears on the mitigation of human suffering. In a few of those perplexing and wearisome cases of protracted labour, arising from rigidity of the os and cervix uteri, and which often harass both patient and Practitioner through successive nights and days, I have seen decided benefit result from the introduction of about half to a dram of the *Extractum Belladonnæ*, by gently rubbing it about the mouth and neck of the womb. It has suspended unproductive uterine action, and produced relaxation of parts, so that on the recurrence of expulsive pains, the os uteri has readily yielded, and permitted the head of the child to pass. But my observations on this subject have hitherto been by far too limited to justify any conclusive practical deduction; I therefore respectfully request Practitioners in midwifery to prosecute this inquiry, and shall be much obliged if they will have the goodness to favour me with the result of their experience.

I trust my medical brethren will also forgive me for seizing the facility thus presented to me of importunately soliciting from them any observations of a practical nature which they may not be disposed to publish, illustrative of the *diseases of women and children*, especially such as are the result of pathological investigations; and more particularly would I venture to solicit specimens of morbid structure, which, though scarcely valuable as solitary preparations, materially enhance the value of a museum.

Explanation of the Plate.

Figure 1. The short forceps — The short forceps measure, from the point of the blade to the extremity of the handle, *eleven* inches.

The *blades* are *five* inches in length, exclusive of the curve, Their greatest width is at the middle, and measures *two inches and an eighth*; the fenestræ at that part being *one inch and a half* wide; the opening at the points and shoulders being about *half* an inch. The *alæ* of the blades should not

exceed a quarter of an inch in width; and the widest part, between the opposite blades, ought not to measure more than two inches and a half, or five-eighths.

The *shank* of either blade is just two inches in length, extending from the shoulder of the blade to the locking part of the handle. The curvature of this part of the instrument is so faithfully represented in the plate, as to render any explanation unnecessary.

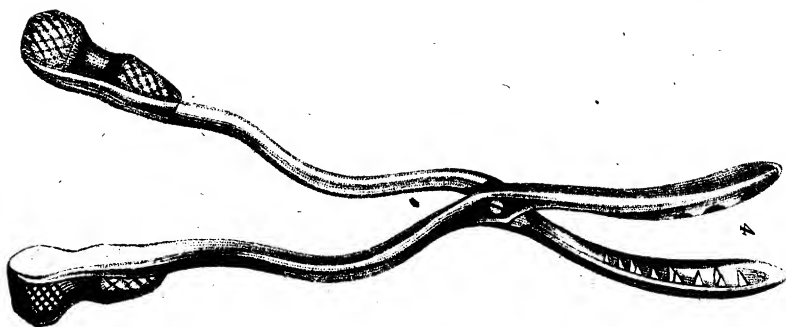
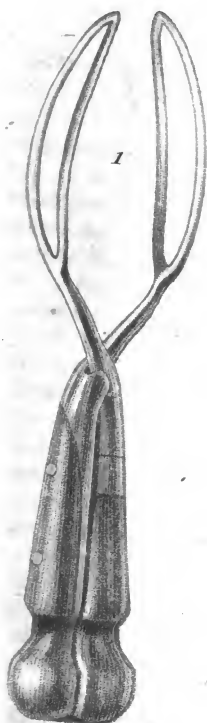
The *handles* are about four inches and a quarter in length. The one which, when viewed with the concavity of its blade upwards, and with the convexity of the curvature in the shank to the left hand, has the lowest three inches and a half of it so constructed, as to be moveable by a screw, as is clearly exhibited in the plate.

Figures 2 and 3 represent detached parts, or rather the two distinct blades of the same instrument, and can require no explanation.

Figure 4. The craniotomy forceps. — This instrument is *twelve* inches in length. The blades are constructed as Dr. Davis's. The one which is applied externally to the cranium, and which is hollowed out, has fixed into it *twelve* sharp teeth, not rising above its edges. This blade is four inches and a half in length from its point to the joint of the instrument, being most judiciously recommended by Dr. D. to be half an inch longer than the inner blade, to carry up any pendulous part of the os uteri, which might otherwise be included in the grasp. The opposite blade, which is to be introduced within the cranium, is only four inches in length: its hollow is filled up with a piece of steel, having a convex surface perforated with twelve holes to receive the angular points of its antagonizing blade; so that when the cranium is firmly pressed between them, the teeth transfix it, and secure a very commanding hold. The *shanks* are five inches in length, and curved, the concavity corresponding with the curve of the blades. This construction is intended to accommodate the instrument to the perinæum in those cases in which it must be endangered by pressure if the shanks were straight, in consequence of the necessity which may exist for carrying the blades over and anteriorly to the pubes: thus this one instrument becomes adapted at once to ordinary cases, and to such as present unusual difficulty.

The parts which may be strictly called the handles, are not more than two inches and a half in length.

D.^r Conquest's Obstetric Instruments.



II.

On the Salubrity of London Air. By E. SUTCLIFFE,
Surgeon, &c. Queen Street.

I BELIEVE it was a saying of Mrs. Cline's many years ago, "that London was the healthiest spot in all the world:" subsequent experience and observation have, at least, established this reputed fact in my mind. In this far-famed spot of a certain number of acres, there are (at an ordinary ratio,) from one million to one million three hundred thousand inhabitants; the greater number of whom enjoy uninterrupted health; I mean amongst the sober, industrious, cleanly, and moral portion of the community.

Making all reasonable concessions on the score of advantages resulting from common sewers, rounding the corners of narrow streets, and the constant ebb and flow of the Thames, I think the happy exemptions the inhabitants for the most part enjoy, result from the sulphureous naptha emitted from the coal, serving the salutary purpose of checking the deleterious agency of febrile affection, whatever the nature of that agent may be; for it is an indisputable fact, that whilst the reports of medical men teem with complaints of the prevalence of fever a few miles around us on many sides, we must all acknowledge the mildness of the febrile character in the metropolitan region, and sometimes none at all. I have for so many years had occasion to observe this fact as to typhus, that I cannot doubt it; and I believe, also, it is the same as to scarlatina. Dr. Lettsom used frequently to ask me, "What is the condition of other cities burning coal?" I cannot tell. — Drs. Willan and Sims expressed themselves pleased with the idea that I have thrown out, and the former urged me exceedingly to give it currency amongst my medical brethren. To prove that the air is saturated with sulphureous naptha, we shall not be able to recognise the presence of a wasp for ten years together in this region, an insect to which sulphur is positively obnoxious. However, (as practical utility is my particular object) I am exceedingly happy to bear increasing testimony to the beneficial revolution which has taken place, and is still aspiring to an attainable perfection in the medical world, that we no longer witness the awful destruction of human life in febrile cases by the *early* introduction of stimuli, under the delusive theory of Brown; but are substituting potent and decisive means of the first order of importance, where the inert saline draught was formerly resorted to and depended upon.

Beside, as knowledge of every kind is happily advancing, we generally meet with so ready a concurrence amongst surrounding attendants, in free ventilation, total abstinence from all nutriment under ardent fever, and in a steady conviction of the persevering use of remedial measures of indubitable energy, that we have less to apprehend as to the result than usual; and I cannot help anticipating a period when the medical routine (comprising an occupation of the highest importance in the social circle) will partake far more of pleasing congratulations, than of chilling disappointment.

III.

On the Eustachian Tube. By J. H. CURTIS, Surgeon to the Dispensary for Diseases of the Ear, Soho Square.

WHILST Physiologists differ on the use of particular parts of the organs of sense, it is only experience and practical facts can decide the real purpose of their structure. This observation applies strongly to the Eustachian tube, the importance of which, to hearing, has been denied by some, and equally contended for by others. One of the first Physiologists of the age, the late Professor Monro, of Edinburgh, from some experiments made by him, seemed to consider the communication of sound in this direction as very slight; while, if we recur to facts, the only sure guide, it appears an essential part to render the impression perfect on the organ: it is observed of all deaf persons, that in trying to collect the sound in conversation, they instinctively, as it were, open the mouth; and this effort, in my opinion, clearly points out the conveyance of sound, and the impression directly made on the ear through this opening: the exclusion of air, also, from this part, in consequence of its obliteration from diseases of the throat, as in angina, scarlatina, and syphilis, is always attended with deafness. These circumstances afford incontestable evidence of the utility of this communication; and it is from reflection upon them I have been induced to consider the use of this part to be, in order to balance the air received through the meatus, and to direct the impression in both ways to one point, the expansion of the auditory nerve, or internal ear, there to communicate its full influence. So convinced have many Surgeons been of this intention of Nature in the construction of the Eustachian tube, which, in its figure, somewhat resembles a trumpet, that attempts have been made, on just principles, to cure deafness, by applications directed this way. For this purpose I may mention an ingenious

instrument, invented by the late *Sieur Guyot*, of *Versailles*, as described by *Gasengeot*: it was from its inspection I was induced to improve on the original idea of *Guyot*, and to render his instrument both easier in its application, and also admitting either the injection of liquids into the tube, or its inflation with air. In performing the operation, the patient must be placed on the ground, and his head applied between the legs of the operator; the instrument must be passed quickly through the mouth, and in this way I have found no difficulty in conducting it into the orifice of the tube. In deafness of long standing I am inclined to think, from what experience I have hitherto had, that its use will be attended with considerable advantage.

IV.

A Case of secondary Hemorrhage (after opening the Temporal Artery) on the Eleventh Day. By JOHN BURGIS, Surgeon, Drayton, Salop.

JANUARY 4, 1819, I attended a young woman, who complained of slight headach and partial paralysis of the left arm, which I considered of a rheumatic nature. I prescribed a brisk purgative, with medicines which had a tendency to keep up a determination to the skin, as well as bowels, with a stimulative embrocation for the arm. The cathartic operated well, from which she experienced considerable relief. Two days after, not being so well, and the bowels again constipated, the purge was repeated, and a blister was also applied high up between the shoulders. The next day I found the blister to have risen well, but the cathartic had not operated, and she was evidently worse from this cause; yet, as it was early in the day, I deferred repeating it, in hopes that it would ere long.

In the afternoon I was summoned to her in haste, being told she was dying. On my arrival I found her extended on a bed, with a countenance expressive of the greatest anxiety; *pupils dilated*; respiration very laborious, sometimes suspended for a considerable interval; pulse contracted, exceedingly irregular in the beat; loss of *vision*, as well as of the power of *deglutition*, yet perfectly sensible when roused. The aperient had not operated. The necessity of immediate abstraction of blood was evident, which I instantly attempted from the arm; but I could neither see nor feel a vein, and was only able to procure half a tea-cupful from two punctures. Being foiled in my attempts on one arm, I proceeded to inspect the affected one, but found that so contracted at the

elbow, and so exceedingly rigid, that it resisted all my efforts at extension. The case becoming more and more alarming, the breathing now almost approaching to stertor, I determined on arteriotomy, which I performed by cutting down upon the temporal artery over the left eye, and which was attended with the happiest effect; for no sooner had the blood begun to flow, than respiration became less and less laborious; the pupils contracted to the stimulus of light; vision, as well as the powers of deglutition, was restored; and the countenance assumed a more placid appearance: the power, also, of the paralyzed arm became restored. The artery did not throw out the blood per saltum, yet it flowed sufficiently down the face to the chin, to enable me soon to collect near a pint basin full. Believing I had already severed the artery, I contented myself with placing a compress and bandage over it, as I had done successively on former occasions. On the eleventh day from the operation I was again summoned to her in great haste, being now told "she was bleeding to death, and that all their attempts to suppress the blood had failed." By the time I got there, having a mile to go, they had succeeded in checking it; to all external appearance, by a multiplicity of applications to the part, which was evidently bleeding within all the time. On removing the bloody cloth by which her head was enveloped, the blood gushed out in a considerable volume to some distance. Placing a succession of compresses over the orifice, I secured them by a bandage, and over that applied the screw tourniquet: this she wore for three days and nights, with no other inconvenience than slight cephalalgia.

The orifice cicatrized over in due time, and the hæmorrhage never again returned.

V.

[The admission of the following papers may appear inconsistent with the notification in our last Number, that the original correspondence department of the present would be considerably abridged, in order to make room for the conclusion of our British and Foreign Retrospect. It will be perceived, however, that we have added very largely to the ordinary number of our pages, in order at once to accommodate Dr. WILSON PHILIP, and to fulfil our engagements. We have been the more ready to lay this correspondence before the reader, as it comprehends matter of universal interest. It is needless to say, that upon Dr. W. P. rests the whole responsibility with respect to the publication of the controversy. — EDIT.]

Dr. W. PHILIP's *Reply* to Mr. BRODIE, Dr. C. H. PARRY, and Others.

DR. COOKE, in the introduction to his work on nervous diseases, relates several experiments performed by Mr. Brodie;

the results of which, Mr. Brodie thinks inconsistent with certain inferences in my Inquiry into the Laws of the Vital Functions. Dr. Cooke also quotes, from the Quarterly Journal for April last, the observations of three members of the Royal Society, who think that I was deceived in the result of certain experiments related in the above Inquiry; but without noticing my reply to these observations in the following number of the same journal. I addressed a letter to Dr. Cooke, complaining of this circumstance, to which he returned an obliging answer, with permission to make it public. He says:—"The Quarterly Journal for April last was sent to me by a friend, who thought that the experiments related in it were connected with the subject of my introduction. I have seen no other number of that journal, and was not aware that you had made a reply to the observations contained in it, otherwise I should have thought it a duty to have detailed that reply. If my book should go to a second edition, which I think not improbable, I shall be happy to supply the deficiencies of the first."

The introduction to Dr. Cooke's work also induced me to address the following letter to Mr. Brodie:—

Worcester, January 25, 1820.

SIR,—A gentleman from London informed me, that he heard it publicly mentioned that you are one of the gentlemen who gave the statement in the Quarterly Journal of April last, in answer to some observations in the appendix to the second edition of my Inquiry into the Laws of the Vital Functions. This report appears to be confirmed by what is said in the 129th and following pages of Dr. Cooke's late Treatise on Nervous Diseases. It is with considerable surprise that I have there seen the experiment, which was detailed in the above-mentioned statement in the Quarterly Journal, again brought forward as affording a refutation of the results of some of my experiments, after I have repeatedly pointed out, that the circumstances of that experiment are *in no essential respect similar* to those of the experiments in question; and it is universally admitted, that in such experiments even *the slightest deviation* may influence the result. The only thing which can excuse Dr. Cooke's quoting from the Quarterly Journal the experiments and observations of my opponents, and wholly passing over in silence my reply to them, is, that he may not have seen the following number of that journal, which contains my reply.

I ask you, sir, as a gentleman, and a man of science, to say, whether the above mentioned experiment can be regarded as a fair repetition of my galvanic experiments?

I am mortified to find, that I have made myself so ill understood by you in my Inquiry into the Laws of the Vital Functions, that you have, in Dr. Cooke's work, brought forward several experiments, with a view to refute certain parts of that Inquiry, which do not, as far as I can judge, at all interfere with any opinions maintained in it.

In the first of these experiments, the nerves sent by the eighth pair to the cardiac portion of the stomach, were divided, and at the end of a week and three days, digestion was found to be going on as usual. This experiment was related to me by Sir Everard Home in a letter, which I still have by me, as performed by Magendie, more than a year before the publication of the first edition of my Inquiry, in the 168th page of which it is mentioned; and I cannot perceive any reason why a different result should have been expected from it. It is shown, in my Inquiry, that if any considerable part of the influence of the brain or spinal marrow be withdrawn from the stomach and lungs, the secretions of these organs are deranged. The par vagum evidently conveys to the great chain of ganglions the influence of the brain. When it is divided at a short distance from its origin, the influence it conveys is cast off; but I cannot perceive how this can at all be done by dividing the particular branch of this nerve which goes to the cardiac portion of the stomach. Before it arrives at this place it has formed innumerable connexions with the great sympathetic and ganglions. They have received from it the influence of the brain; and if nerves going to any particular organ be divided, there are every where, such are the precautions of nature, numerous anastomosing branches still capable of conveying the necessary influence as long as it is duly supplied from its sources.

Had you, sir, been more conversant with the effects of dividing the par vagum, you would not, I think, have made the observations, quoted in Dr. Cooke's work, relating to the influence of the state of the lungs on the stomach, after the division of these nerves in the neck. The dyspnœa is at first so slight, as often to be hardly perceptible; sometimes, indeed, it is not at all so. It only becomes considerable as phlegm accumulates in the lungs; yet, if the animal be allowed to eat as soon as the nerves are divided, efforts to vomit immediately ensue. In one case, in which Dr. Hastings had divided them, and the animal was immediately allowed to eat, the food it had taken, in consequence of the efforts to vomit, accidentally got into the trachea in such quantity as to occasion suffocation, and the animal died within five minutes after the division of the nerves, and

without any dyspnœa, previous to the act of suffocation, having been observed. If you will take the trouble to reperuse the account of my galvanic experiments, you will find that the digestion was sometimes most impaired when the dyspnœa was least so, and *vice versâ*.

The observations just made, respecting the division of the cardiac nerves, apply, if possible, with greater force to the experiments in which the great nerves of the leg were divided. Dr. Monro, I believe, relates similar experiments in his lectures, but without drawing your inferences from them. It is well known that nerves accompany the vessels throughout every part of the body in such number, that could we destroy all other parts of a limb, leaving the nerves alone, they would still give the appearance of the entire limb. Now it is shown, by experiments related in the above Inquiry, that the nerves which supply the vessels belong to the ganglion system; an inference well supported by the observations of the Anatomist; and that it is on these nerves, and not on the nerves immediately derived from the brain and spinal marrow, that secretion depends. The use of the nerves you divided is to convey impressions to and from the limb, and to excite the muscles of voluntary motion. It is true they receive twigs from the ganglion nerves, as all parts do; but the division of these can be of little consequence, as the number of ganglion nerves and their anastomoses may be said to be almost without end. It is the character of the ganglion nerves, that they every where anastomose, and that each may convey the influence of many, while the nerves, arising directly from the brain and spinal marrow, convey the influence only of that part of those organs from which they take their rise. These facts are illustrated by many experiments related in my Inquiry. It might as well be said, that the blood supplied by any of the great arteries of a limb is not essential to the health of the limb, because, when the artery is secured by ligature, the anastomosing branches can perform its functions; as that the division of any ganglion nerve, not impairing the function of secretion, proves that the influence it conveyed is not necessary to the due performance of that function. While the source of nervous influence is entire, nature has provided many channels for that part of it on which life depends.

The next experiment related in Dr. Cooke's work, is one in which the source of nervous influence was lessened, and there were evident marks of deranged secretion in the wound. It is true that you observe "the circumstance of the union being incomplete may be reasonably attributed to the animal being in a torpid state, and remaining apparently

without nourishment for many months." But all who have been much in the practice of experimenting on frogs, know that their health is not readily influenced by causes which greatly impair that of warm-blooded animals. Granting, however, that the causes you state did, to a certain degree, operate, will it be admitted, that in estimating those which prevented the proper healing of the wound, nothing is to be ascribed to such a privation as that of the lower part of the spinal marrow? The effect was such as corresponds with the results of my experiments. Even in those in which the greatest part of the spinal marrow was destroyed, which could be done without immediately destroying life, the stomach was not more affected than by dividing one of the eighth pair of nerves; and when the whole of the lumbar portion was destroyed, some degree of digestion still went on, even in the warm-blooded animal, which is so much less tenacious of the living powers than that of cold blood. It appears, from many of the experiments of M. Le Gallois, as well as of my own, that the lower part of the spinal marrow is the least essential of those parts which prepare the nervous influence.

The inference to which your view of the experiments, which Dr. Cooke quotes from you, have led you, that only some of the secretions are under the influence of the nervous power, (Dr. Cooke's work, page 134,) seems unphilosophical, and would, therefore, on this account alone, have appeared highly improbable.

When I consider the nature of this letter, sir, I need not, I trust, beg of you to favour me with as early a reply to it as your engagements will admit of.

I have the honour to be,

SIR,

Your very obedient humble servant,

(Signed) A. P. W. PHILIP.

The following is the Answer which I received from Mr. Brodie.

16, Saville Row, February 4, 1820.

SIR, — You were correctly informed, that I was one of the three Fellows of the Royal Society who were formerly requested to undertake the repetition of your experiment on the application of the galvanic influence to the stomach, after the division of the nerves of the eighth pair. After reading your observations on our experiment, I can discover only one point of difference between it and the original

experiment made by yourself, namely, that in ours the galvanic influence was applied by a succession of contacts instead of a continued stream. How far this may have affected the results I will not pretend to determine: but as you suppose that it might have done so, I have (since I had the honour of receiving your letter of the 25th ult.) made the experiment again, taking care that it should very accurately resemble yours in this and in all other respects. The rabbit was fed with parsley; and immediately after the nerves of the eighth pair were divided, he was subjected to the influence of the galvanic battery, and this was continued for upwards of seven hours; at the end of which time the contents of the stomach were examined, and found to have precisely the same characters, the same odour, appearance, and consistence, as in another rabbit, which had been fed in the same manner, and in which the nerves had been divided at the same time, but on which the galvanic battery had not been employed.

You may be assured, that neither my friends nor myself have the smallest desire to depreciate the value of your labours; and I hope that I have sufficient zeal in the cause of science, to have experienced a real pleasure, if I could have met with results similar to those obtained by yourself. That I have not done so, is not to be considered as my fault, and ought not to be regarded by you as a matter of offence. If the subject be worthy of further investigation, I doubt not that some competent experimenter will, sooner or later, undertake to prosecute it; for myself, I take the liberty of declining to enter into any controversial discussion, for which I have neither leisure nor inclination.

I beg to offer to you my apologies for not having acknowledged your letter sooner: the delay has arisen from my desire to make a second repetition of your experiment previous to my writing to you.

I have the honour to be,

SIR,

Your obedient servant,

B. C. BRODIE.

To Dr. A. P. W. Philip, Worcester.

In reply to Mr. Brodie's letter, I wrote the following, enclosing the declarations of Dr. Hastings, and Mr. Sheppard, which I am about to lay before the reader:—

Worcester, February 7, 1820.

SIR,—I was yesterday favoured with your reply to my last. You will be troubled with another letter, which I

transmitted through an uncle, who resides in London, and which left Worcester before your letter reached me. I hope you will believe, that it is impossible for me to associate any degree of unfairness with the opinion I have always entertained of you; but the experiment in question has been so often repeated, and with such circumspection, and that by different people, that there are no physiological facts of which I am better assured, than that a certain power of galvanism will remove dyspnœa, and restore to the stomach the power of altering the food after the eighth pair of nerves are divided in the neck. One man may be deceived; but that the number who have witnessed this experiment, and that repeatedly, should have been so, is impossible. I am therefore persuaded that the circumstances of your experiment and mine have differed in some essential respects, although you are not at present aware of it.

I can form no judgment either of the circumstances of your experiment, or the precise result, till you have answered the following questions, which you will particularly oblige me if you will have the goodness to do on receipt of this letter.

1. Was the animal fed, after a fast of some continuance, immediately before the experiment?
2. Was the twitching of the fore-legs constant during your experiment?
3. Was the dyspnœa, occasioned by the division of the nerves, relieved by the galvanism?
4. Did vomiting come on in the galvanized rabbit?
5. What was the appearance of the food in the stomachs, as exactly as it can be stated?

You do not, I hope, sir, think me so illiberal, not to say irrational, as to be offended at any one for observing different results from any of my experiments; but you will allow, that repeating an experiment made by me, without due attention to what I consider its most essential circumstances, and laying the repetition before the Royal Society, and thus influencing many of its members against me, without the subject having been mentioned to me, and, consequently, without an opportunity of vindicating myself having been given to me, are just causes of complaint*.

I can truly say, I believe that I have as little leisure or inclination for controversial discussion as you have; but in one particular I differ from you. It is certainly optional

* I might also have stated, in the above letter, that the circumstance of the names of all the gentlemen who made the experiment having, till now, a space of several years, remained unknown to me, greatly increased the difficulty of proving the truth of my experiment.

with every man, whether he will enter into discussions or not; but when he may retire from them, is not equally so. I can feel no wish to retire from the discussion in question till it is finally settled; and if we cannot otherwise discover the circumstance which has caused so great a difference in the result of our experiments, I shall be happy (as I shall have occasion to be in London next autumn, if not sooner,) to repeat my experiment in your presence, and that of some other of the most eminent men of our Profession; and their report will determine the question.

I send, on the other side of this paper, the declarations of Dr. Hastings, and Mr. Sheppard, both men of the highest respectability; the former well known to Dr. Burrows, Dr. James Johnson, and others of our Profession in London; the other to Mr. Cline, Mr. Astley Cooper, and others.

I have the honour to be,

SIR,

Your faithful humble servant,

(Signed) A. P. W. PHILIP.

To B. C. Brodie, Esq.

The enclosed declarations.—

I hereby declare, that having very often divided the eighth pair of nerves in the neck of the rabbit, and always found that it immediately put a stop to digestion, the food eaten previously to the division of the nerves being found in the stomach unchanged, however long the animal lived after the division of the nerves, I was requested by Dr. Philip to make the following experiment. Having allowed a full-grown rabbit to eat as much parsley as it chose, after a long fast, and shaved the hair off its stomach, I divided the eighth pair of nerves in its neck, and coated the lower part of the nerves with tin-foil, and bound a shilling over the stomach. It was then exposed to the galvanic influence, by connecting the tin-foil and shilling with the opposite ends of a galvanic trough of such power as to keep up a constant twitching in the fore-legs. The difficulty of breathing, which always succeeds the division of the eighth pair of nerves, had come on before the galvanic apparatus was arranged. Upon the application of the galvanism, the breathing soon became free. When the power of the trough failed, or we intentionally discontinued the application of the galvanism, which we did repeatedly, the breathing always became oppressed; but was again rendered free on the re-application of the galvanism. This continued to be the case for twelve hours,

after which the breathing could not be wholly relieved by the galvanism (inflammation of the lungs having supervened); and during the last hour of the animal's life the dyspnœa was very great. No attempts to vomit occurred in this animal, except once, when the galvanic influence had become very weak, ten or twelve hours after the division of the nerves; whereas, in every instance in which I have divided these nerves without the application of galvanism, and I have done so more than a dozen times in the rabbit, efforts to vomit always soon ensued.

On examining the animal after death, the lungs were found highly inflamed. The contents of the stomach, instead of being such as above described, presented the appearance of those of a healthy stomach, in which digestion had been going on for many hours.

I am ready to attest the truth of every part of the preceding statement in any way in which I may be called upon to do so.

(Signed) CHARLES HASTINGS.

Worcester, February 6, 1820.

Three other medical men were present at this experiment, and particularly examined both the stomach and lungs; and expressed themselves perfectly satisfied with the result.

C. H.

Having, at the request of Dr. W. Philip, divided the eighth pair of nerves in the neck of two small dogs, which were allowed to eat as much lean raw mutton, cut into small pieces, as they chose, immediately before the experiment, after having fasted for many hours, I subjected one of them to the galvanic influence, by coating the lower parts of the divided nerves with tin-foil, and connecting it with one end of the galvanic trough; while the other end of the trough was connected with the region of the stomach, which, before the experiment, had been shaved, and a three shilling piece bound upon it. The power of the galvanism was such as to occasion a twitching of the fore-limbs during the whole experiment. The dog which was not galvanized was immediately seized with dyspnœa, and efforts to vomit. In the other, neither was observed in the slightest degree, at any period of the experiment, except when for a few seconds the galvanic influence was intentionally discontinued, during which the breathing became very laborious, again becoming free as soon as the galvanism was restored. This dog lived above two hours. The other dog was still alive, though

extremely weak, at the end of four hours, at which time it was killed by a blow on the head.

On examining the stomach of the galvanized dog, the mutton was found in a soft, half-dissolved state, all character of muscular fibre having disappeared. The lungs, on examination, were found perfectly healthy, but rather of a florid colour. In the stomach of the other dog the bits of mutton still retained their firmness, and on being cut into, displayed both the red colour and fibrous appearance of the muscle, which did not seem to be at all diminished. The lungs were found greatly congested, and collapsed very imperfectly, the surface being covered with patches of a dark red colour.

The above experiment was made in presence of the house-surgeon and pupils of the infirmary, who all examined the state of the stomach and lungs, and expressed themselves satisfied with the result. The accuracy of the above statement I am ready to attest in any way in which I may be required to do it.

(Signed) JAMES P. SHEPPARD.

Worcester, February 7, 1820.

The following is the letter alluded to in the preceding:—

Worcester, February 6, 1820.

SIR,—About ten days ago I wrote to you in consequence of some observations published in Dr. Cooke's work on nervous diseases. You will perceive that the occasion requires that my letter should be published. It will go to the press in a few days. I have requested a gentleman, on whose discretion I can depend, to deliver this to you, and to learn from you what reply, if any, you wish me to state, as having received from you, when I mention my having sent you the above letter.

I have the honour to be,

SIR,

Your very obedient humble servant,

(Signed) A. P. W. PHILIP*.

To B. C. Brodie, Esq.

* I made no reply to Mr. Brodie's observation, that he could discover only one point of difference between the experiment detailed by himself and his friends in the *Quarterly Journal*, and mine; because I could only repeat what I had said in the following number of that journal. If Mr. Brodie had occasion to repeat the experiment frequently, he would have seen, that all the circumstances I there mention are capable of influencing the result. It is needless, how-

After waiting till the tenth for Mr. Brodie's reply to these letters, I addressed the following letter to that gentleman, with regret that the advanced period of the month did not allow me to wait a longer time for his reply than the thirteenth.

Worcester, February 10, 1820.

SIR,—I am sorry again to trouble you so soon; but as from the introduction of Dr. Cooke's work, and other reasons, I feel it necessary that the letters which I have addressed to you should be laid before the public, and am particularly anxious that your reply should appear in the form most agreeable to you; it is necessary that I should inform you, that my letters, for reasons with which I need not trouble you, must leave this for the press on the fourteenth instant, before I can hear from you by the mail of that day. As I have not heard from you in reply either to my letter of the seventh, or to that delivered to you by my uncle on that day, in which I mention the intended publication of my first letter, and beg to know what, if any, reply you wish me to make public, I am obliged to write to day, that you may not be called upon to reply by return of post; and I am very sorry, and beg to apologize, that circumstances oblige me to solicit so early a reply as I now do, which your numerous professional engagements may render inconvenient to you. If I hear from you, I shall of course follow the directions you give respecting the letter I have received from you. If not, I shall consider your silence as leaving me to the dictates of my own feelings. In that case I shall act as I should wish another to act towards me under the same circumstances, and give to the public, with my letters, your reply to my first letter; and I shall take care afterwards to make equally public any reply you may favour me with to my other letters, as far as you wish me to do so.

I have the honour to remain,

SIR,

Your faithful humble servant,

(Signed) A. P. W. PHILIP.

To B. C. Brodie, Esq.

ever, to insist on this, as he acknowledges that there was a deviation from my method which might have influenced the result: but I am assured that he will not obtain a correct result, till all the circumstances I mentioned, and particularly the proper strength of the galvanic power, as well as its mode of application, is attended to.

I received the following answer from Mr. Brodie on the thirteenth:—

Saville Row, February 12, 1820.

SIR,—I beg to acknowledge the receipt of your letters on the seventh and twelfth instant, and of Dr. Hastings and Mr. Sheppard's additions to the former.

In the experiments related in my last letter, the twitchings of the fore-legs were nearly constant. There was no vomiting. It was not observed that the respiration was different from that of the other rabbit, which was not galvanized. The food in the stomach had the appearance of masticated parsley.

I shall be glad of the opportunity of seeing you make the experiment whenever you visit London. I undertake to promise that every facility shall be afforded you of doing so. I assure you it will give me much satisfaction to observe such results as you anticipate.

In closing this correspondence, I beg to remark, that you are in an error if you suppose that I laid the repetition of your experiment before the Royal Society with a view to influence any of its members against you, without your being able to vindicate yourself; I only joined two other gentlemen in repeating the experiment, at the request, and for the satisfaction of those with whom the management of the concerns of the Royal Society principally rests.

You are at perfect liberty to publish my letters; and I have the honour to be,

SIR,

Your obedient humble servant,

(Signed) B. C. BRODIE.

Dr. W. Philip, Worcester.

To this letter I returned the following answer:—

Worcester, February 14, 1820.

SIR,—I am favoured with your letter, and am much obliged by the readiness with which you offer me every facility in the repetition of my experiment. I shall have much pleasure in making it with you, and, from your answer to several of my queries, I have little doubt that we shall detect the cause of the difference of result. You say in reply to my last query, "The food in the stomach had the appearance and odour of masticated parsley:" by this I understand that the parsley was, throughout the stomach, in the state here described. This state is very different from that in which the contents of the stomach were found in your first experiment; (see the Quarterly Journal for April last, page 164;) for which, as I observed in my reply to it, I could not account.

You say in reply to my fourth query, that "There was no vomiting" in the galvanized rabbit; that is, no efforts to vomit, as nothing is ever brought up after the division of the eighth pair of nerves. It appears from the observations in the 154th and 155th pages of my Inquiry, that we have reason to believe that no means will prevent the efforts to vomit after the division of these nerves but some degree of digestion going on in the food which lies in contact with the coats of the stomach. You observe in reply to my second query, that the twitchings of the fore-legs were only "nearly constant;" and in your experiment the galvanism was only continued for seven hours, while in the most decisive of my experiments on rabbits it was continued for sixteen hours. In the result of my last galvanic experiment, in which the stomach was exposed only to a comparatively small degree of the galvanic influence, you will observe a striking resemblance to the result of your experiment. It is said in page 232 of my Inquiry, (second edition), "The food was but little altered, retaining the colour, smell, and stringiness of the parsley. It was, however, sufficiently exposed to the galvanic influence to prevent the vomiting." This perfectly corresponds with your account of the state of the contents of the stomach in your last experiment, but is very different from that given of them in the former. In my experiments, the metal was always applied to the lower part of the pit of the stomach. When it is applied near to the end of the sternum, hardly any part of the stomach is in the galvanic circle. You forget to answer my first query.

It is a circumstance in this discussion, you will allow, which particularly deserves notice, that the proofs on our side are all of a positive, yours necessarily of a negative kind. We only speak of what we could not have seen, had it not existed; you, of what you were not able to see, which many things besides what you suppose might have prevented your seeing. You now admit that in your first experiment there was a deviation from my method, which might have occasioned a difference of result, yet you were then quite as sure of the contrary in regard to that experiment, as you now are with regard to the present; for you say in the Quarterly Journal for April last, page 162, "That the experiment might be repeated with the greater accuracy, the paper was put into these gentlemen's hands, *who implicitly followed the directions contained in it.*"

If you will take the trouble to re-peruse my letter, you will find that I do not even surmise that your motive in any thing you have done was such as you mention. I merely stated the facts and their necessary consequence: and now that you

are sensible that the experiment was not a correct repetition of mine, you will regret, I am persuaded, that it was presented to the Society.

I have the honour to be,

SIR,

Your faithful humble servant,

(Signed) A. P. W. PHILIP.

Having occasion to address the public on the subject of the preceding letters, I beg leave to make some further observations connected with it. I do not feel myself called upon to reply to various observations which have been publicly made on the opinions maintained in my Inquiry into the Laws of the Vital Functions. I feel no anxiety in leaving them to the judgment of those who are versed in the subjects to which they relate; but there are two instances in which my meaning has been so unaccountably misunderstood, and that in works which are in the hands of many members of our Profession, that without some explanation on my part, I must appear to maintain opinions which I believe to be wholly unfounded.

The first of these works which I shall mention is entitled, *Additional Experiments on the Arteries of Warm-blooded Animals, &c.* by Charles Henry Parry, M. D., F. R. S., &c. In the inquiry above mentioned, I had occasion to reply to some observations of Dr. Parry (father of Dr. C. H. Parry), in his *Elements of Pathology and Therapeutics*, on the opinion which I had maintained respecting the nature of inflammation. The latter gentleman has given an answer to this reply in the above Treatise. It is with reluctance that I notice his answer, because I am wholly at a loss to account for his, I may almost say, uniform misconception of my meaning.

In the 160th page he begins his answer by observing, "Dr. Wilson Philip taking up the opinion of Bichat and others, has, indeed, attempted a direct proof from experiment, in favour of the exclusive influence of the capillaries in carrying on the circulation." If Dr. C. H. Parry can point out any passage in my Treatise in which such an opinion is expressed, I shall be much more surprised than he can possibly be, that any one should maintain a position so extravagant. Many quotations from my Treatise follow, the meaning of all of which he appears to me to misapprehend. I would ask Dr. C. H. Parry, where I have maintained that the larger arteries do not possess "an equal and proportional share of power (page 161) with the capillaries?" Where have

I made any inference from the irregular motion of the blood, observed under certain circumstances in the capillaries, respecting the cause of circulation? (page 163.) Where have I maintained that "no influence can be exerted through them," namely, the heart and large vessels, "by stimuli on the capillaries?" (page 168.) With respect to the quotation in page 165, if Dr. C. H. Parry will take the trouble to re-peruse it, he will find that I speak of the result of Dr. Parry's experiments, not of any thing which "Dr. Parry has himself asserted." Similar observations apply to other passages.

I must beg the reader's patience, while I say a few words in reply to the following observations of Dr. C. H. Parry, on the quotation which he gives from my Treatise, in the 175th page. He observes: "Dr. W. Philip¹ continues, the truth of this inference appears, indeed, from direct experiments; for from those made with a view to ascertain the state of the vessels in an inflamed part, it clearly appears, not only that the velocity of every part of the blood was lessened, which Dr. Parry admits may be the case, supposing the lessened momentum arising from this cause more than compensated by the increased quantity of blood; but that the general momentum of the blood also, in the inflamed part, was lessened, because the blood was observed to move more and more slowly, till, in the most inflamed part, it ceased to move altogether."

Dr. C. H. Parry's first observation on the above passage, is—"This sentence is certainly not intelligible." It would, possibly, have been more correct, had he said, "not intelligible to me." "In the first place," Dr. C. H. Parry proceeds, "Dr. Parry has no admission with regard to diminished velocity, which is entirely an assumption of the author, but simply as to the rate of momentum." Dr. Parry observes, in his *Elements of Pathology and Therapeutics*,—"Neither will this conclusion be invalidated, were it even proved, according to the opinion of Dr. Wilson, that the velocity of the blood in the vessels of an inflamed part is diminished, unless it be also proved, that the velocity is diminished in a greater proportion than the quantity is increased." This passage I quoted, and only argued on it to shew, that the velocity is diminished more than the quantity is increased.

In the second place, Dr. C. H. Parry proceeds—"When we consider that the momentum is the product of the quantity and velocity, it is not possible to suppose 'a lessened momentum more than compensated by an increased quantity of blood.' If in this passage the term velocity had been substituted for momentum, there would have been some appearance of meaning." The passage here given as a quotation from

my Treatise, is, indeed, nonsense; but it is Dr. C. H. Parry's, not mine. The reader will observe, from the quotation in the last paragraph but one, that the passage in my Treatise stands thus—"Supposing the lessened momentum arising from this cause," namely, the lessened velocity, "more than compensated by the increased quantity of blood." This, to most men, I believe, would be perfectly intelligible.

In the 174th page, Dr. C. H. Parry also uses very strong expressions, under similar circumstances. He observes of me—"In combating Dr. Parry's opinions on these subjects, he thus expresses himself: 'Does it not seem a necessary inference, that the blood is moved in the capillaries by the power of these vessels themselves; and, consequently, that if they are debilitated, the momentum of the whole part, as well as its velocity, must be less than in health?' Now, though this is tautological, and superfluous as relating to a case where the quantity of matter is allowed to be increased, because there is no instance in which the momentum is diminished, where the quantity is increased, without such a diminution of velocity," &c. If Dr. C. H. Parry will take the trouble to refer to my Treatise, he will find that he has again misquoted it. He, indeed, makes the sentence such, as deserves even more than the severity with which he treats it.

I shall trouble the reader with but one more passage from Dr. C. H. Parry's Treatise, (page 177.) "With regard to some of Dr. Wilson Philip's experiments, I must confess that I have repeated them with very different results. To avoid the cruel, because sometimes uncertain, process of crushing the brain with the blow of a hammer, and to remove altogether the injurious effects of the violent motion which it may occasion, I have enclosed the whole head in a pair of wide and flat-mouthed pincers, with large handles, forming a powerful lever. The whole head was thus, without the least disturbance, or chance of an imperfect effect, crushed in the smallest possible space of time. The result of this sudden and certain death has not been a suspension of the capillary action, but its increase." Dr. C. H. Parry must be aware, that when the brain is crushed by the blow of a hammer, which can never be uncertain if the hammer is very large, its destruction is instantaneous. It occupies but a small fraction of the time which must be employed in crushing it by the means which Dr. C. H. Parry employed. His remark, therefore, that it was crushed in the smallest possible space of time, cannot be admitted. The effect in his experiment was the same as that which I have mentioned as ensuing when the brain is imperfectly crushed.—See my Inquiry,

page 94, second edition. If Dr. C. H. Parry will take the trouble to look into it, he will see how much the result of such experiments depends on the suddenness with which the brain is crushed. Is it fair, in repeating physiological experiments, to deviate from the method of the original experimenter in the most essential respects, and then adduce the necessary difference of result, as a proof of his inaccuracy?

I regret that I have been obliged to reply to a son of Dr. Parry in the way in which I have now done. Dr. C. H. Parry cannot find a better example than that of such a father. He will see in his writings nothing that had not been duly considered; and his replies, to those who dissented from him, are remarkable for the modesty of a philosopher, and the language of a scholar and a gentleman.

The other work above referred to, is the *London Medical and Physical Journal*. In a Proemium to the 43d volume of this work, by Mr. Hutchinson, just published, in which this gentleman has taken upon himself the duty of instructing the Public, respecting "the progress of Medicine, and its auxiliary sciences," there are many observations relating to my Inquiry into the laws of the vital functions. In the 20th page he observes of me—"He also asserts, that he has refuted the notions of Bichat, respecting the functions of the ganglionic system of nerves. Although the positive argument of the life and growth of the foetus, without brain and spinal marrow, may alone be considered a sufficient refutation of the negative arguments, formed, for the most part, on loose and remote analogies, which Dr. Philip advances against the doctrines of Bichat." What is meant by my assertion, that I have refuted the notions of Bichat respecting the ganglion system, and the loose and remote analogies, I know not; unless they allude to my referring the reader to certain experiments, detailed in my Inquiry, the results of which are inconsistent with his opinions on that subject. In a note referred to, in what Mr. Hutchinson says respecting the foetus without brain and spinal marrow, it is observed:—"Dr. Philip does not even notice this fact, although there are instances of it recorded by Morgagni," &c. Now, I have not only mentioned this fact repeatedly, but have entered into a disquisition of some length respecting it, in both editions of my Inquiry*; and in the second edition, described a case of this kind, which I had an opportunity of examining†.

* First edition, page 61, pages 240, 241, 242, 243. Second edition, page 61, pages 250, 251, 252, 253.

† Second edition, page 62.

Mr. Hutchinson continues:—"The only important argument brought against the doctrine of Bichat, is, that the functions he stated to depend on the influence of the ganglionic system of nerves, cease on the destruction of the brain and spinal marrow," (page 21.) This gentleman here passes unnoticed, various other parts of my *Treatise*; all the experiments, for example, which I have detailed for the purpose of proving that the organs, which are under the ganglion system, are affected by stimuli applied to the brain and spinal marrow. He does not seem aware that I had ever made such experiments.

A little lower, in the same paragraph, he observes:—"The experiments of Dr. Philip shew similar results; but there is one peculiar observation of his, that is very interesting; which is, that when the action of the heart has been much disturbed by the destruction of a certain portion of the spinal marrow, by waiting a little time, that action would resume its former regularity, and then another portion of the spinal marrow might be destroyed without stopping it, and so on repeatedly." At the end of this sentence there is a reference to my *Inquiry*, and even to the particular experiments; experiments which I never made, as Mr. Hutchinson will find, if he ever takes the trouble to read my *Inquiry*. All this would be quite amusing, were not so gross a violation of the implied compact between a reviewer and the public, too grave a subject for merriment.

As Mr. Hutchinson appears to be wholly unacquainted with the contents of my *Inquiry*, it is not surprising that in page 22 he should argue against my supposed opinion, that the existence of some part of the spinal marrow is necessary to the action of the heart; although I have detailed many experiments, in the very beginning of that *Inquiry*, for the purpose of proving, that the power of the heart is wholly independent of every part of the spinal marrow, its action not being in the least influenced by the total removal of that organ. In the next paragraph he ascribes to me the opinion, that the ganglion system retains the nervous influence, "like a sort of reservoir;" whereas I have made many experiments, and detailed many observations, expressly with a view to prove, that the ganglion system is not a reservoir of nervous influence, but a mere channel through which it flows. But the reader has seen enough of Mr. Hutchinson's suppositions. I do not mean to say, that he is intentionally incorrect; but the effect, as far as relates to the public, is the same as if he were so; and such unaccountable carelessness in a man, who professes to judge others, and direct public opinion, is little less culpable than intentional error.

Where there is such incorrectness in the statements, we expect to find equal inaccuracy in the reasoning. Mr. Hutchinson's reasoning does not disappoint this expectation.

DEPARTMENT OF NATURAL HISTORY, &c.

Calendar of Flora and Fauna, kept at Hartfield, near Tunbridge Wells. By Dr. T. FORSTER, from the 16th of January to the 15th of February, 1820.

Jan. 16th.—At this hybernal season of the year there is, necessarily, very little movement in the vegetable kingdom. The Fauna alone presents objects of interest. The weather is still intensely cold, which drives many sea birds to the inland parts of the country. The Wild Duck (*Anas Boschas*) is very abundant; and Wild Geese are said to have been heard performing their aërial migrations by night. Numerous small birds are found frozen to death on the ground.

21st.—Weather milder and thawed, but dark and gloomy. Narcissi begin to flower in warm rooms in the house. A curious variety of *N. Tazetta*, from Holland, is come into bloom in my room, having a duplication of petals, two of which are placed within the nectary.

Severe cases of small-pox have again appeared: and, in general, I have noticed also an unusual prevalence of inflammatory complaints.

29th.—I noticed the Beeches and Oaks very destitute of decayed leaves this winter, owing, probably, to the late severe frost. The ground about Godstone, and all the way to Oatwood, and about East Grinstead, is remarkably swampy, deep, and heavy to ride over. I scarcely ever remember it worse.

Feb. 1st.—Dead Nettle and Groundsel here and there seen in flower. The Fieldfares are nearly all gone from the gardens and yards near the house. In general, the number of small birds seems greatly diminished since December.

10th.—Some Crocuses (*Croc. vernaes*) and the yellow *Narcissus Tazetta* in blow in the house. Weather mild and open. Likewise a few Snowdrops. Very large coveys of birds are still seen in this neighbourhood. And Wild Ducks abound in the ponds and marle-pits filled with water.

15th.—Some other varieties of *Narcissus* begin to appear in a warm room. Out of doors there is scarce any indication of spring yet, the season being backward than last year.

THE COMING OF THE SWALLOW.

The curious Naturalist is again invited, by the approaching spring, to note down, in different parts of the globe, the first arrival of migratory fowls, particularly the Swallow: the author suspects they will be late and scarce this present year. The interest which, from printed records, seems to have been taken in the question, Whither goeth the Swallow in winter? would scarcely be credited, were it not proved by the numberless documents left in print on this subject. But to me it appears there is no way of solving it better, than by noting down carefully their first coming in different latitudes*. Linnæus proposed, also, a comparison of the arrival and departure of Swallows, with the spring and fall of the tree leaves, and the periods of flowers.

P. S. I have received a curious paper, entitled, *Voraussicht der Beschaffenheit des jeden Künftigen Winters*; by Professor Drittmann, Berlin, 1819; which is worthy the perusal of the lovers of the prognosticative meteorology.

[This Journal is to be continued in the neighbourhood of Tunbridge Wells.]

PART II.

GENERAL REVIEW

OF

MEDICAL LITERATURE,

FROM JULY 1819, TO JANUARY 1820.

[Continued from page 141.]

[In our last Number we introduced, under the head of "General Review," a critique on the recently published work of Professor Thomson; and in that Article we proposed to continue the important inquiry respecting the preventive efficacy and general merits of Vaccination, in the present Number, by an especial notice of a Paper of Sir GILBERT BLANE; that engagement we now, therefore, hasten to fulfil.]

* See Observations on the Brumal Retreat of Swallows. Sixth Edition, London, 1817.

A Statement of Facts, tending to establish an Estimate of the true Value and present State of Vaccination. By Sir GILBERT BLANE, Bart. M.D., F.R.S., Physician in Ordinary to the Prince Regent.

(From the *Medico-Chirurgical Transactions*, Vol. X. Part 2. Read November 10, 1819, pp. 24.

VACCINATION.

WE have selected this paper from among the Transactions of the Medical and Chirurgical Society, for minute analysis; because, in its title at least, it goes exactly to that point, which, of all others, we think it is of importance, at the present moment, to press upon the attention of our readers. Cases of fever, attended with pustular eruptions, succeeding vaccination, are now become so common in London, that they have probably been witnessed by every Practitioner; yet few, perhaps, would like to hazard a decisive opinion regarding the precise nature of the disease. The world in general are ready enough to believe that it is the small-pox; and many circumstances concur, to give countenance to this supposition. The anxiety of the public upon this question is so great and so general, that it must be fairly met by the Profession; and the sooner they can agree about it, the better, we think, will it be for all parties. The confidence of the public in their medical advisers contributed, in a most essential degree, to the general introduction of vaccination in this country; for they found them uniform in their recommendation of it. It becomes therefore, in a manner, a duty incumbent upon us, to examine rigidly and impartially, whether the grounds upon which vaccination stands are still secure, and what new lights have been thrown upon the subject by the lapse of time and the unexampled extension of the practice. The public, it is clear, will be better satisfied, by seeing that the Profession continue to direct their attention to so important a point; and their confidence in vaccination can *alone* be maintained, by the assurance, that the deeper the subject is investigated, and the wider the range that is taken of it, the greater is the confidence with which *we* can come forward to recommend it. It required but little discernment to perceive, that medical men, in their early, vigorous, and benevolent recommendations of vaccination, were guided, in a great measure, by speculative reasoning. Their *experience* of its efficacy was, necessarily, bounded by very narrow limits; and though no analogical argument could lead them to believe that the influence of the preventive

might cease in the course of years, yet still such an event must have been allowed to be within the verge of possibility. From what we have ourselves observed, we think we are authorized in saying, that the medical history of the vaccine disease is not yet perfect; that twenty years more may perhaps go by, before we can venture to say that we are acquainted with all its peculiarities; and that, therefore, a continued attention to its progress, and a strict inquiry into all its anomalies, is indispensably requisite, both as a matter of science, and as a matter which involves the quiet of mind, if not the lives of thousands.

It was under this persuasion, that in our last Number we laid before our readers a brief outline of the opinions entertained by Dr. Thomson, of Edinburgh, and by some of the best Practitioners in that part of the island, on the subject of the varioloid epidemic. It was our object, at that time, to give a general view of the varioloid question, in order to prepare our readers for some of the details which we might afterwards find it necessary to lay before them. Our inquiries were then directed more particularly to the question of the identity of small-pox and chicken-pox. This, we remarked, was a question of minor importance to that which now occupies the public mind, at least in this town; viz. whether the failures of vaccination are sufficiently well marked and numerous, to lessen, in any considerable degree, the value of the discovery of cow-pox; and if in any, to what degree? These are important questions, and we think Sir Gilbert Blane has done much good, by directing the attention of the Profession to them in so pointed a manner; and that too in a volume which deservedly enjoys a very extensive circulation.

Indeed we must say, that Sir Gilbert Blane is always to be found where the public can be benefited; and though we may presume to differ from him on certain speculative points, we can have no hesitation in asserting, that this paper adds another to the many obligations which the Profession and the world at large lie under to his talent and persevering research.

The result of the experience of a man who has seen the rise of vaccination, and who has watched its progress with that accuracy which distinguishes Sir Gilbert Blane, must, of course, be highly valuable; and when it goes to the support of all that the most zealous advocates of the practice contended for twenty years ago, it must be highly gratifying to the philanthropist. Whatever we may presently have to say to this, we are at least ready to admit, that there prevails throughout the paper an air of good sense; and that a high

commanding tone, arising from the firm persuasion of the goodness of the cause which he supports, is taken up, with regard to vaccination, which is very pleasing. We must not omit to add, either, as a great merit in this paper, that there is no unnecessary parade about it. It occupies but twenty-four out of a hundred and ninety pages; and when we look to the present fashion, both of writing books, and papers intended for the transactions of learned societies, we shall find more merit in this little circumstance than is perhaps at first sight apparent.

Sir Gilbert Blane's paper is chiefly occupied with a series of calculations founded on the bills of mortality, and intended to show the extent of benefit which has accrued to the world from the introduction of vaccination. For this purpose four periods, each of fifteen years, are selected; and the mortality by small-pox, as compared with the total mortality in each period, is exhibited in the form of Tables. The first includes the fifteen years immediately preceding the introduction of inoculation, that is, from 1706 to 1720, both inclusive. Any objection which might be taken against the accuracy of these bills, in regard to the discrimination of diseases, is certainly, as the author observes, less applicable to small-pox than any other disorder; its character being so striking, as not to be mistaken by the most ignorant and careless observer.

The second series is taken at the middle of the last century, when inoculation had made considerable progress; that is, from 1745 to 1759, both included. In comparing this with the preceding series, it ought to be taken into account, that eleven parishes were added to the bills of mortality between the years 1726 and 1745.

The third series comprises the fifteen years previous to the introduction of vaccination, when inoculation had made still greater progress; that is, from 1785 to 1798, both included.

The fourth series comprises the time in which the vaccine inoculation has been so far diffused as to produce a notable effect on the mortality of small-pox; that is, from 1804 to 1818, both included.

The result of these computations stands as follows :

	Total Mortality.	Mortality by Small-pox.
1st period -	350,503	27,552
2d period -	332,826	29,895
3d period -	293,350	26,579
4th period -	297,404	14,716

***Ratio of the Mortality of Small-Pox to the total Mortality.**

From 1706 to 1720, one in 12.7; that is, 78 in 1000.

From 1745 to 1759, one in 11.2; that is, 89 in 1000.

From 1785 to 1798, one in 10.6; that is, 94 in 1000.

From 1805 to 1818, one in 18.9; that is, 53 in 1000.

From these tables it appears, that the proportion of deaths from small-pox to the total mortality increased in the course of the last century; so that inoculation seems to have added to it, possibly by opening fresh sources to the diffusion of its *virus*; but the author is not inclined to lay so much stress on this circumstance as has generally been alleged. Some allowance must be made for the diminution of general mortality, in relation to the population, which took place during that period, and for the increase of population in that part of the metropolis included in the bills of mortality; but neither of these circumstances seems to affect the general result to any considerable extent. It further appears, that since the introduction of vaccination into general use, there has been a clear and undeniable diminution of mortality by small-pox, the number of deaths in the last series not much exceeding one half of what they had been in similar periods of the middle and latter end of the last century. This is certainly a very satisfactory statement; but it must be confessed that it is but a melancholy sort of satisfaction, to think that 14,000 persons died of small-pox in London in fifteen years, previous to which the disease had been completely extirpated, or rendered harmless, in the populous cities of Vienna and Copenhagen†. It is curious to observe, that the deaths by small-pox, which in 1817 had mounted so high as 1051, fell, during the year 1818, lower than they ever have been known since the institution of the bills of mortality; the total number being only 421.

We think these calculations interesting; and we have no doubt that something may be done by them, towards establishing what Sir Gilbert Blane as well as we ourselves is in search of—an estimate of the value and present state of vaccination; but we cannot think they go far in this point of view. They point out to us, indeed, the comparative mortality from small-pox; but they give us no insight at all into the extent to which it prevails. A disease may exist to a great degree all over London, and be scarcely perceptible in the bills of mortality, as has frequently been observed to take place during the prevalence of an influenza, This we

* Vide Medico-Chirurgical Transactions, vol. x. p. 318.

† Page 323.

strongly suspect to be the case in London at the present time, when small-pox appears to us to prevail much more extensively than is commonly supposed; assuming, however, a milder character than is usual, and modified to an amazing extent, by the general practice of inoculation and vaccination. That such is really the fact we are satisfied, as well by the opportunities which we have ourselves enjoyed of seeing the character of the prevailing epidemic, as by the testimony of many Practitioners with whom we have conversed, and by the official report of admissions into the Small-Pox Hospital, recently published. From this last document it appears, that more than three times as many patients were admitted with the casual small-pox in the year 1819 as in 1818; and we have reason to know that they were sent into the hospital from *all* parts of the town, and, in a variety of instances, could be distinctly traced to contagion communicated by infected individuals. That small-pox, therefore, has been considerably more common in London this last year than has been observed for many years past, we are well persuaded; and the result of the bills of mortality for the year cannot, we imagine, affect this important position: they can only point out, that is to say, the comparative mildness or malignity of the disease, but not the extent to which it prevails.

Sir Gilbert Blane, we think, does not meet the great question of the occurrence of small-pox after vaccination so fully as we are of opinion he might have done, or as the very title of his paper warrants us in expecting. The amount of concession which Sir Gilbert is inclined to make may be stated in a few words. He acknowledges that instances of small-pox do occasionally occur in vaccinated subjects; that the invasion and eruption, in every respect, resemble those of the genuine small-pox. He has seen the disease attended with high fever, and a thick crowded crop of papulæ, such as precedes the most severe and dangerous cases of the confluent kind. This runs on to the fifth day from the eruption, sometimes even to the sixth or seventh, in rare cases, at which time some of the papulæ begin to be converted into small-sized pustules. The disorder then abruptly stops short. On the following day the fever is found to have subsided, with a shrivelling and desiccation of the eruption, and recovery proceeds without the least danger or inconvenience. The face is marked for some time afterwards with brown spots, but without pits. What forms the strong line of distinction between this disease and proper small-pox, according to the author, is, that, with a few exceptions, it does not proceed to maturation and secondary fever, which is the only period of danger. Sir Gilbert is not prepared to deny that death may

have occurred in a few instances; but these adverse cases he states, and we believe with great justice, to be so rare, as not to form the shadow of an objection to the expediency of the general practice of vaccination. The author knows from his own observation, as well as from the testimony of others, that the matter from this disease does, by inoculation, give the small-pox. He adds, therefore, that we can *hardly, perhaps, with propriety* deny it that name, but it should be distinguished by some strong discriminating epithet, such as *mitigated*, or *modified*. — Page 327—330.

This, we believe, comprises not only the substance of the author's remarks on that peculiar pustular disease succeeding vaccination, which is now becoming so common, but all the details concerning it which are afforded us in this paper. We say that, upon the whole, we are disappointed with this part of it. In any attempt to establish an estimate of the *true value and present state of vaccination*, it did appear to us that something more was requisite than a mere recapitulation of some of the most common appearances of this disease. We anxiously cut open the pages of this volume that are devoted to Sir Gilbert Blane's communication, in the hopes of finding some light thrown upon those more obscure points in the history of this affection, which can be made out only by the help of varied and extensive observation. It is quite clear, however, that Sir Gilbert Blane is cautious in advancing any decided opinion whatever concerning the disease. The qualifying clauses in the last sentence which we quoted from the paper, and which we have printed in Italics, suggest a kind of doubt whether the author is himself a firm believer in the variolous nature of the eruption: but setting this aside, it is, we apprehend, clear, from the author's own showing, that no reasonable doubt can any longer remain, that variola may occur after vaccination, and that any attempts to conceal this truth from ourselves or the public will eventually tend to the injury of both. The omissions of which we complain in Sir Gilbert's paper, we shall now endeavour to supply as well as we can, premising, that as far as the author's account of the disease goes, it appears to us to be drawn up with much accuracy, and evidently to have been the result of his individual observation.

The first point to which we shall allude is the impropriety of designating these cases of small-pox occurring after vaccination as *failures*. The author of the paper is not singular in this error, but it is one which we think has had a considerable influence in prejudicing the minds of many against the practice of vaccination. They are anomalies, but not failures. As well might the inoculation of small-pox be

called a failure, when, as sometimes happens, the disease recurs in after life. While upon this topic, we may incidentally take notice of the opinions entertained by Sir Gilbert Blane on the subject of secondary small-pox. He tells us (page 325) that one of the most essential and characteristic laws of small-pox is, that it affects the human subject but once in life, and that this law is violated only in rare cases. The result of our own much more limited observation would, we confess, have led us to a somewhat different conclusion. We have had occasion to see, and that too very recently, several cases of what we are firmly persuaded are small-pox occurring after inoculated small-pox; and we are strongly induced to suspect, that if a prejudice in favour of a contrary opinion did not so strongly warp the minds of medical men, and if, therefore, such cases were more commonly expected, they would be much more commonly found. By many we are sure that such cases as we have now alluded to would have been passed over as *irregular eruptions*, arising, perhaps, from that never-failing source of disease in the minds of some, a disordered state of the stomach and bowels; or they would have been at once called chicken-pox; or lastly, no opinion whatever would have been hazarded concerning them.

We have watched some of these cases very narrowly. One of them occurred in the wife of a medical man, who had been inoculated by her father, who was also in the Profession. The extreme severity of the eruptive fever in this case, the appearance of a roseolous rash upon the third day, followed by the eruption of thirty or forty small pustules, bearing all the characters of modified small-pox, and following exactly its ordinary course, satisfied us that it was small-pox which was present. Upon inquiry, it was ascertained that the lady had been inoculated with small-pox while an infant, and that the disease, though mild, had gone through its stages with perfect regularity. This case we allude to, not as any thing singular, but as a fair and well marked specimen of what we believe to be very common. What the disease *really* was, could, perhaps, only have been ascertained by the very objectionable and hazardous mode of inoculation; but we can only express our conviction that it resembled exactly those cases of eruption succeeding vaccination, from which we have ourselves, in two instances, produced genuine small-pox in the unprotected, by inoculation. We think it would be worth while to inquire if these cases are more common among those who have undergone the inoculated small-pox than in those who have taken the disease casually; but as we are not furnished with any means of deciding this point, it would be in vain to hazard a con-

jecture concerning it. When we say, therefore, that cases of small-pox succeeding vaccination are cases of *failure*, we should not forget that the same opprobrium may be cast upon inoculated small-pox, nay, upon the casual small-pox itself, which is sometimes not only insufficient to secure the constitution against a future attack of small-pox, but even against the milder disease—cow-pox. We have seen lately an adult, who had been inoculated with small-pox thirty years ago, take the cow-pox, and pass through the disease, though certainly in a modified form; the glands of the axilla swelling on the third day, and an extensive irregular areola forming on the fourth, and continuing to the sixth day. If, then, a *modified cow-pox* can be taken, as is well known it can, by those who have undergone small-pox, it does not require any great stretch of imagination to understand how a modified small-pox should occasionally succeed cow-pox. The one, indeed, occurs after inoculation, and the other casually; but, on the other hand, it must be remembered, that the one is a mild and the other a malignant disease.

We have long been inclined to believe that it was the mildness of the cow-pox alone which prevented its being communicable, like small-pox, by effluvia. On the 23d August last, we had an opportunity of seeing, at the Small-Pox Hospital, a case of cow-pox attended with eruption. This eruption appeared to us to be of a defined character. It appeared on the 12th day from inoculation, was unconnected with any disorder of the *primæ viæ*, and it receded on the fourth day. It occurred to us that this child might possibly have been able to communicate the cow-pox by effluvia. Be that however as it may, we think it very possible that there may be a disease intermediate between cow-pox and inoculated small-pox; and such a disease may, perhaps, at some future period of the world, come to supersede vaccination. It is the remark of a man (we wish we were at liberty to name him) who has had extensive opportunities of seeing both small-pox and cow-pox, that the increased attention which is now paid to these diseases will itself be of much use in diminishing the mortality of the former; that in early times small-pox was supposed to be too much beyond the reach of human control, and was allowed, therefore, to extend its ravages too much unchecked; whereas experience has shown that it is within our control, and perhaps even to a greater degree than has yet been imagined.

But it is time that we should recur to the more immediate object of inquiry before us; and we may next, therefore, allude to the varieties in the character of mitigated small-pox.

Sir Gilbert Blane has well observed, that all the phenomena of disease are liable to great varieties and exceptions. "Accordingly," says he, "though the fifth day is the most common limit of this disorder, it sometimes stops short on the third, sometimes not till the sixth or seventh, and, in a very few cases, it has been known to run the common course of small-pox." It has never occurred to us to see any of these *three day* cases, and we suspect they are exceedingly rare. All the others we have occasionally witnessed. There seems, indeed, to be a chain in the degree to which vaccination affects the constitution, which has not yet been sufficiently attended to. We have seen cases where its influence could only be traced by a very accurate observer, where, for instance, without affecting the *symptoms*, or the appearance of the eruption, it has served only to shorten its course, or more properly that of the convalescence. Again we have seen other cases of small-pox succeeding vaccination, where the febrile symptoms, and the appearance of the eruption, were so completely modified by the influence of the latter, that the true nature of the disease could never have been suspected by one who had not observed it in a variety of instances, and marked the insensible gradations by which they run into each other. In our own practice, we have been in the habit of marking these distinctions in the disease by the terms *mitigated* and *modified*; appropriating the former to those cases which exhibit the character of *genuine variolous eruption*, but where the influence of vaccination is apparent only in altering the periods of the disease, and the latter, (*modified*), to such as differ from common small-pox in the appearance of the eruption. One of the first cases which we remember to have seen was of the former kind. Up to the sixth day the disease assumed a very formidable appearance, but it was then suddenly arrested, apparently from the influence of previous vaccination. It was seen by us, in conjunction with the late Dr. Adams, who acknowledged it to be an instance of a very severe, though still a *mitigated* small-pox.

More lately we have had opportunities of seeing the *modified* small-pox in its various shapes. We have observed two different appearances which the eruption assumes, and which we think are among the most common. In the one of these, the eruption appears in the form of a copious crop of pimples, very conspicuous upon the forehead, chest, neck, and arms. About the fourth day, the forehead is observed to be sensibly swelled, and a considerable degree of inflammation will be seen around the base of each vesicle. It may be accidental, but we have noticed that small-pox, after vaccination, when it assumes this form, is not attended by such

severe eruptive fever as attends the second variety, which is not only as severe as the eruptive fever of common small-pox, but is generally longer by one, or even in some instances two days. About the fifth day of eruption in this variety, a few small pimples appear in different parts of the surface of the body, generally on the face, back, and arms; very rarely, indeed, in the inferior extremities. The fever recedes on the appearance of the eruption, which runs through its stages with great rapidity.

From the most slightly mitigated to the most highly modified forms of small-pox, we believe, then, that a gradation may be traced. Whether this affection is ever liable to be confounded with other, and with what diseases, is a point to which we have frequently directed our attention. We have seen two cases that somewhat resembled it in appearance for the four or five first days, the one of which was decidedly a pustular venereal eruption, and the other was, by some, strongly *suspected* to be such; but the resemblance ceased upon the sixth day, when these eruptions continued stationary, whereas that of modified small-pox would, in the same space of time, have materially altered its character. In two instances which have lately come under our notice, one at the Small-pox Hospital, and the other in King Street, Portman Square, persons unprotected by vaccination took natural small-pox in that modified form which we have described. The latter of these was particularly interesting to us, as having been watched in its progress by a gentleman to whom the public are accustomed to look up with great deference in these matters*. The child lay in the same bed with another who had genuine small-pox in a very severe degree, and who communicated a very severe modified small-pox to her nurse, a young woman of nineteen, who had been vaccinated, and who had a distinct cicatrix on the right arm.

And this leads us to notice the period at which small-pox most usually occurs after vaccination, upon which important point we had hoped to receive some information from Sir Gilbert Blane. In our own practice, we have seen no cases occur earlier than seven years after vaccination; but we have been told, upon authority which we dare not dispute, that they have been seen as early as six months, or even less. Never having seen such cases, we cannot speak of them; but we are sure that, generally speaking, it is not a common occurrence before the tenth year, and the average of our cases have happened twelve or thirteen years after vaccination. We have been forcibly struck by the circumstance, that by

* Mr. Moore, Director of the National Vaccine Establishment.
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far the larger proportion of our cases have been in persons about nineteen years of age. Whether the cessation of the growth of the body, or any other less obvious change in the constitution, which takes place at that period of life, has any share in contributing to this peculiarity, we do not presume to determine. We cannot, however, overlook the curious fact, that the disease we are speaking of is much more common now than it was; and we know no better way of accounting for this, than what is suggested by such an hypothesis.

We have directed our attention also to the proportion of vaccinated subjects, who are affected by mitigated or modified small-pox, but we have been unable to form any opinion upon the subject which is at all satisfactory to us. The calculations of Mr. Dawson, and Mr. Christian, of Liverpool, quoted in the earliest work on this subject with which we are acquainted*, do not appear to be founded on data sufficiently accurate to give us even an approximation to the truth. From the official report for 1819, of the Physician of the Small-pox Hospital, Dr. Ashburner, it appears, that between the 22d December 1818, and the 2d December 1819, nineteen cases had been admitted into that establishment, being about one in eight of the whole admissions. During the former year the proportion had been as high as one in six. This, of course, does not bear at all upon the question of the proportion in which it affects vaccinated subjects; and we only mention it incidentally, to mark the extent to which the disease prevails. It certainly occurs most frequently where the contagion of small-pox is any where particularly virulent; and, under such circumstances, we have observed it to affect persons who had often resisted small-pox before. For the most part it will be found, that those who are attacked by it have a large and irregular cicatrix; but this is by no means constant. One of the best marked cases we ever saw, occurred at the Small-pox Hospital in the middle of August last, in a girl only eleven years old, who came from a neighbouring school, from which, ten days previously, a girl with genuine distinct small-pox had been admitted. The former girl had a very perfect circular cicatrix on the left arm.

We have most commonly observed the disease to occur in those who were vaccinated in the country: the coincidence may be accidental, but a considerable number of our cases

* Dr. Monro's "Observations on the different kinds of Small-pox, and especially on that which sometimes follows Vaccination." Edinburgh, 1818. Constable.

have come from Berkshire and Hampshire. It has chiefly occurred among those who have recently arrived in London; and we have even thought, that the change of air may have had some effect in predisposing to the attack; but upon this, of course, we lay no stress. There is some reason to suspect that it occurs in certain families more than in others; and, if this should prove correct, it will serve as a curious illustration of that anomaly in the history of measles, to which Dr. Baillie some years ago directed the attention of the Profession*.

Sir Gilbert Blane tells us, (page 330) that a disease corresponding exactly with the mitigated small-pox after vaccination is mentioned in the Report of the Central Committee of Vaccination at Paris, made in December last, as having occurred in France, and that they refuse the name of small-pox to it. We are satisfied they will not long adhere to this opinion; and we may here, by the way, take an opportunity of stating, that the staunch supporters of the infallibility of cow-pox are continually throwing in our teeth that cases similar to what we call small-pox after vaccination, do not occur upon the Continent; and that small-pox is eradicated from many countries, and exists only in England to the reproach of the country. Sir Gilbert Blane falls into this style of argument more than we should have expected from his acknowledged acuteness and candour. It may be very true, as he states, that vaccination was adopted instantly in Peru, in consequence of a flash of conviction from the light of evidence†; but we shall not be easily persuaded, that there is more good sense and sober judgment among the inhabitants of the Andes, than among those of the City of London. We suspect too, that we are arguing very much *ab ignoto*, when we talk of the disappearance of small-pox from so many countries. It is very easy for the Central Committee of Vaccination at Paris to deny it the name of small-pox; but small-pox it is, and must in all probability have had its origin from casual cases. There is abundant evidence in Dr. Monro and Dr. Thomson's works, that modified small-pox exists *all over the Continent*, though certainly not hitherto to the same extent as has been observed in this country. Let us, however, wait a few years before we draw our conclusions from this source.

We had intended to speak at some length as to the capability of the modified disease to infect the unprotected with

* Transactions of a Society for the Improvement of Medical and Chirurgical Knowledge. Vol. iii.

† Page 334.

genuine small-pox; but, on referring to Dr. Monro's work formerly mentioned, we find the thing done to our hand, and more circumstantially than we had been aware of*. We shall only mention, therefore, that on the 8th September last we saw a young woman, M. M., æt. seventeen, inoculated with matter from a very strongly marked case of small-pox after vaccination, assuming the form of what is called horn-pock. The arm upon the ninth day exhibited four large jagged vesicles, surrounded by erythematous inflammation, in which smaller vesicles were forming. A copious crop of distinct small-pox pustules followed.

Upon the 10th of February, 1820, we saw two children, both of whom had been regularly vaccinated, inoculated with matter (if it could be so called) taken from one of the very mildest cases of small-pox after vaccination that we ever remember. The arms of both children inflamed, and there was the usual appearance of *modified areola and vesicle*, but no constitutional disturbance whatever. Some of the lymph from one of these highly modified vesicles was taken on the fifth day, and inserted into the arm of a child nine months old, whose mother was obstinately prejudiced against vaccination. The arm inflamed in the *regular* way; the infant had a very severe and even alarming attack of eruptive fever, followed by the appearance of about thirty pustules, which went through their regular course. The scabs had not fallen from the arm when we last saw the child†.

No doubt whatever can be entertained, that modified small-pox is a disease not to be compared in point of severity with natural small-pox; but we have observed in Dr. Ashburner's printed Report‡, that that gentleman goes further, and considers it as much milder than inoculated small-pox. This we are glad to be assured of, for our own opportunities of observing inoculated small-pox have been (we should rejoice to say) very scanty, and are of course insufficient to enable us to speak decisively on this point. But even without this assurance, we should have no hesitation in saying, that it is the bounden duty of every medical Practitioner to recommend vaccination. We do not indeed shut our eyes to what must be acknowledged to be a very great evil; we mean the constant anxiety in the minds of parents, that their children may at some period of their lives take the modified small-pox.

* Chap. vi. page 209. — Monro's Observations on Small-pox.

† These cases were watched in their progress by two of our professional friends.

‡ This Report, just published, we shall append to the present paper.

If it should hereafter appear that the cases (*not of failure*), but of small-pox after vaccination, are not more numerous than at present, the chances are so infinitely in favour of vaccination, that no relaxation from the rule ought to be permitted. The question, however, must at last certainly hinge upon the proportion of vaccinated subjects which become affected by the modified disease. We perfectly agree with the author of the paper that there is less danger, in London at least, of inoculation spreading the disease, than was at one time supposed. It is quite clear that it cannot well be more general than it was during the last summer, when no inoculation, or next to none, was practised. The extent, in fact, to which a single case of small-pox may spread the disease is quite incalculable; and whether there be one or ten, will not, upon the whole, make so much difference as might be imagined, if we bear in mind what we believe there is no doubt of, that the contagion of small-pox may be conveyed by the clothes of an individual who is himself unsusceptible of the disease.

A multitude of causes are in the mouths of medical men, sufficient, as they think, to account for the occasional occurrence of small-pox after vaccination. Among these the first we shall mention is the inoculating, either directly or indirectly, from an *imperfect vesicle*, that is to say, one which has not gone through its stages with perfect regularity. This is what the Vaccine Board lay so much stress upon in their Report for 1816. To us it appears highly theoretical, and contrary to analogy. We have shown that irregular or modified small-pox is capable of producing the *genuine* disease.

Another of these supposed causes is the *deterioration of the virus* from successive inoculations. So far from this being an adequate cause, we have the assurance of the late Mr. Wachsels, whose knowledge of variola and varioloid diseases was very extensive, that successive inoculations improved the matter, and he would never on any account consent to alter the direct line of descent. The lymph with which he was inoculating at the time of his last illness, and which is probably still preserved, he could trace back to a very distant source.

The *disturbance of the vesicles* we are not inclined to speak more favourably of than either of the preceding causes. We know no instance in which the secondary disease could be fairly attributed to that source, and we know of a vast many where it certainly had nothing at all to do with it. On the authority of Mr. Wachsels, we are disposed to speak more cautiously on the fourth of those causes to which small-pox after vaccination has been attributed:—we mean

excessive inflammation of the vesicle, converting the true vaccine lymph into common pus. Mr. Wachsel, we believe, had seen some cases where, after such an occurrence, the second vaccination had gone through its regular stages; but we cannot speak very positively even upon this point.

To what cause then, it may be asked, are we to attribute the frequent occurrence of small-pox after vaccination? Our answer to this important question may be anticipated from what we urged in the last Number of the REPOSITORY. It will never do to say that it is owing to spurious matter, or imperfect vaccination, or rusty lancets. We must dive much deeper into the secrets of pathology, before we shall reach the truth. We are ready to allow that *peculiarity of constitution* will go some way towards affording a solution of the difficulty, but it is not far that even this will carry us. We must look to the laws of the variolous poison. We must be content to acknowledge, that we have been wrong in laying it down as so fundamental a law in its action, that it affects the body but once during the course of life. It is a curious fact in the history of the disease; but it is not an *essential law*. We may, perhaps, go a step farther, and say, that cow-pox is only in itself a modified small-pox. This was one of the earliest suppositions entertained regarding the nature of cow-pox; and we suspect it to be the correct one. It will not be necessary to pause here with the view of anticipating an objection which may be started, arising from some supposed specific distinction between a vesicle and a pustule. We trust that this piece of pathological nicety is now pretty generally exploded. The hypothesis seems to us to be very well borne out by every view which we have been enabled to take of variolous contagion.

And now, what are we to say to the last point to which Sir Gilbert Blane directs the attention of his readers in the paper before us — the power of vaccination to extirpate the small-pox? Sir Gilbert becomes very animated on this topic; and though we may differ from him in opinion, we yet admire the warmth with which he urges his conviction. He tells us*, that it is now matter of irrefragable historical evidence, that vaccination possesses powers adequate to the great end proposed by its meritorious discoverer, in his first promulgation of it in 1798, namely, the total extirpation of the small-pox. It is demonstrable, says he, further, in the next page, that if at the first moment of this singular discovery, at any moment since, at the present, or any future moment, mankind were sufficiently wise and decided to vaccinate the

* Page 323.

whole of the human species, who have not gone through the small-pox, this most loathsome and afflicting of all the scourges of humanity would instantaneously, and for ever, be banished from the earth. This point we will not dispute with the benevolent author; but we cannot conceal our fears, that a consummation so devoutly to be wished for is yet impracticable and hopeless. If vaccinated subjects will, as we are persuaded will always be found to be the case, under certain circumstances, take small-pox, it is needless to talk about exterminating the disease; nay, it is, we think, wrong to hold out such hopes, as it may give the public reason to expect what will never happen. But though we cannot extirpate the small-pox, we have the most ample and convincing evidence, that Nature, in her infinite wisdom, has given us the means of mitigating its violence, and of subduing it from the most malignant disease which has ever been recorded, to one scarcely so severe as the majority of those to which mankind are exposed.

At an half-yearly General Court of the Governors of the Hospital for Small-Pox, for Inoculation, and for Vaccination, held at the hospital at Pancras, on Thursday, the 9th day of December, 1819, the Physician, Dr. Ashburner, presented the following statement, which was read, and ordered to be entered on the minutes, and printed for circulation, as follows:—

To His Royal Highness the DUKE of YORK, &c. &c. &c., President; to the Vice-Presidents, Treasurer, and Governors, of the Hospital for the Small-Pox, for Inoculation, and for Vaccination.

Your Physician desires to state,

That since the termination of the last year, when he had the honour of offering to the General Court some observations upon the diseases which fall under his treatment in your hospital, he has continued to have opportunities of seeing numerous cases of the small-pox, and of the cow-pock; and likewise of that varioloid eruption, which sometimes occurs after vaccination. Not only the alarm which many circumstances connected with the inquiry upon these complaints are calculated to excite in the public mind, but the desire to investigate some very important and curious morbid phenomena, lead him to feel interested upon this subject. At the end of another year he is induced to offer to your notice a statement of the principal facts which have been afforded him of the character and occurrence of these diseases.

The number of patients afflicted with the casual small-pox,

that have been admitted into the hospital from the 22d of December, 1818, to the present time, is 159; of these 24 are still under treatment in the house; 81 have been discharged cured; and 54 have died.

The increased rate of mortality during this period may be accounted for from three causes; the principal one of which is the late stage of the disease at which many of the patients, under very unfavourable symptoms, have applied for assistance: It is well known that cases of the small-pox are received within the doors of your hospital at any time during the progress of the complaint; and some of the patients of the past year have been in so dreadful a state, that they have died within twenty-four hours after their admission. Another cause of the great mortality is the unusual severity that has characterized the symptoms of the disease: in the previous year your Physician stated that its general character had been mild; this year it has been quite the reverse; the greater number of cases, not only of those admitted, but also of those seen at their own houses, have been of a very malignant kind. In several instances the confluent form of the disease has been, at an early period, attended with petechial eruptions, or with erysipelatous inflammation, and extensive vesications. A third cause for the increased rate of mortality is found in the description of persons, who have, for the most part, suffered fatally under this disease: they are such as have been careless and dissolute in their habits of life, or as have been previously subject to the operation of debilitating circumstances: sailors, brewers' servants, helpers about stables, and parish paupers.

These facts, however, are not adduced to account for all the cases of death which have, during the last twelvemonth, occurred in your hospital. The small-pox is often perfectly uncontrollable, and patients afflicted with it will sometimes die, when the promise of a favourable issue is held forth by the symptoms, even after the sufferings are supposed to be at an end, and the period of convalescence to have arrived.

Many persons who are alarmed at the reports which they have heard concerning the frequent occurrence of the small-pox, after what has been called perfect vaccination, are eager to lay aside the blessings that are derived from the discovery of the immortal Jenner, to recur to this horrible disease for an imaginary safety! Many persons who have seen a few cases of small-pox, know not the dreadful aspect which it is capable of assuming, and many others are blindly led by the obstinate influence of prejudice and of ignorance, to court for the dearest objects of their solicitude, their children, and their nearest friends, the dreadful horrors and

the dangers of this painful and loathsome malady. Let those who are advocates for the small-pox, and who, by again widely introducing its inoculation, would spread its pestiferous influence to numbers of their unguarded fellow-beings, once visit the wards of this hospital. Let the mother who has nourished an infant at her breast, view the likeness of an object to which she can reduce it, by inoculating it with the small-pox. Let her see a patient at the commencement of the disease suffering with headach, restlessness, and fever. Let her view another who has borne, for a few days, the agonies of the eruption — on the eighth or ninth day the whole surface of the body covered with little abscesses so painful and so irritating, that the patience of human nature is hardly able to sustain such misery! If the complaint be viewed in its progress, how horrid is the spectacle at each succeeding period! A fellow-creature covered with scab, sore, or matter loathsome from stench, and disgusting to look upon, moaning with pain, or, may be, raving with delirium; and at last, perhaps, exhausted with the wearing agony of his suffering!

Is this the object to which a mother would convert a darling infant? Is it to such a state that the heedlessness of ignorance, by engendering a dreadful infection in one person, shall reduce, perhaps, some hundreds of fellow-beings?

And who shall promise that death will not take place, or that, if life be spared, the whole frame shall not be ruined by the vile consequences of such a pestilence, swelled glands, large boils, and extensive mortifications, that not only disfigure the body, but leave for ever in the constitution the traces of their havoc?

But all experience has pointed out, that death is very often the consequence of an attack of the small-pox, not only when it arrives casually, but when it is artificially produced. The wise policy of your benevolent Institution has made a provision to meet the ignorant prejudices of some few persons who are still obstinate in their desire to continue the propagation of this disease. Through the kindness that you have shown to these unenlightened people, forty persons have been inoculated within your walls:—Unlike the result of some cases of the previous year, none of these have died, but several have suffered very severely.

It is gratifying to reflect, that this Institution has afforded the benefits of vaccination, within the year, to 3297 persons, whose cases have all been narrowly watched, and have all been registered in the books of the hospital.

It is an additional source of gratifying reflection, that, since the last Report, one only of the 46,662 cases which have been vaccinated in this hospital, has been affected with the varioloid

eruption that occurs after the cow-pock, and in that case the symptoms were peculiarly mild. There were about forty pustular eruptions upon the body, and the child had been affected with fever only for two days. There is no doubt that this complaint occurs much oftener after vaccination than was at one time suspected. It would be difficult, and, perhaps, under the present state of our knowledge, impossible, to account for this circumstance; but the occurrence of it, even more frequently, would hardly afford an objection to the practice of vaccination. Nineteen cases of this eruptive complaint have occurred during the year in your Establishment. Dr. Gregory, who had the kindness to attend the greater number of these, can testify, that though in some of the severest instances there was, at the outset, a degree of smart fever, yet, upon the whole, it was not to be compared in severity to the casual, or even to the inoculated small-pox. The patients were well in a few days. Your Physician has, during the same period, had other opportunities of observing cases of this disease, and he can, from his own observations, corroborate the statement of his friend Dr. Gregory.

Your Physician cannot conclude this communication without some expression of his sorrow for the loss which your Establishment has suffered during the year, of perhaps its most valuable officer*. The Governors had occasional opportunities of observing the ardour, regularity, and diligence, with which the late resident Surgeon-Apothecary conducted his department of the Institution; but it fell to the lot of the Physician to observe him more frequently, and at more various times, not only discharging his duties with zeal, but administering his superior skill to desponding and suffering patients, with a humanity, and with a cheering benevolence of manner, which all good men would wish to assume towards their inferiors.

JOHN F. ASHBURNER,

7, Fitzroy Square, 9th December, 1819.

Extracted from the Minutes.

A. HIGHMORE, SEC.

13, Holborn Court, Gray's Inn.

Return of Patients from January 1, 1819, to January 1, 1820.

Casual small-pox	190
Inoculation	44
Vaccination	3328
Died	60

* Mr. T. C. Wachscl, who held the office for upwards of 30 years.

Increased Numbers in 1819.

In-patients for casual small-pox	132
Inoculation	10
Out-patients for vaccination	1167

W. L. WHEELER, Resident Surgeon.

FEVER.

IN our general reviews it will have been noticed, that the three leading questions of vaccination, fever, and syphilis, have been discussed apart from the consideration of other topics. Still acting upon this plan, we shall now therefore proceed to a slight notice of the prominent production of this country on the head of fever, which the last six months of the preceding year have produced.

A second and much enlarged edition of Dr. Armstrong's very able treatise on typhus*, &c. has, within this period, made its appearance, in which the author has kindly complied with our wishes formerly announced†, that he would advert to the disputed point of contagion, and to the doubted doctrine of critical days. On the first of these heads Dr. A. has expressed himself in the following words:—

“The described modifications of the common continued fever, the synocha and the synochus, arise from ordinary causes, such as cold, heat, and the like, *but typhus arises from one specific cause—contagion*. Now in the course of my experience I cannot recollect a single instance where a fever proceeding from such ordinary causes was changed into one possessing the specific contagion of typhus, and therefore I am strongly disposed to conclude, that the thing never happens, though upon a point of such vast concernment it does not become me to speak with positive assurance, as the opinions of many discerning men are on the opposite side of the question.

“It is consonant (our author goes on to say) with the general analogies of nature to suppose that the various specific contagions have originated from combinations of physical elements, and that these contagions have afterwards propagated themselves by the peculiar powers impressed at their first generation. But if this view of the subject be correct, why cannot we trace the origin of particular contagions to various eras in the history of physic? and

* Practical Illustrations of Typhus Fever, of the common Continued Fever, and of Inflammatory Diseases, &c. By John Armstrong, M.D. &c. Third edition.

† See our review of Dr. A.'s work on Scarlatina, &c. in Vol. XI.

why do not fresh contagions now arise from the combinations of physical agents? In answer to these questions it may be remarked, that there is a limit fixed to physical combinations, and that as the world has existed for so many ages, most, if not all of the combinations that could take place have long since been completed; and hence we have no distinct record in history of the generation of particular contagions; and hence too, perhaps, we have not sufficient reasons from past experience to expect the generation of any new one, except in some great revolution of time. If it be the fact, as I am inclined to believe, that genuine typhus always originates from contagion, how can the present epidemic be accounted for, which has raged in so many parts of the United Kingdom, for at least the last three years? My own observations would lead me to infer, that what has been so generally termed the epidemic is not one specific fever, but three fevers especially different in their exciting causes: and these fevers are, namely, typhus proceeding from a specific contagion, the common continued fever proceeding mostly from atmospheric influences, and a peculiar fever which arises from the huddling of many human beings together in confined and filthy situations*."

We cannot, we must confess, accord with Dr. A. in these conjectural assumptions. Our own observations and experience lead us to infer, (and this is a doctrine we have more than once inculcated in the pages of the REPOSITORY,) that under particular circumstances, local and constitutional, exterior and inherent, the febrile derangement, which, in the first instance, acknowledged an exciting source independent on contagion, may in its course come to engender an artificially contagious material; and that from these incidental circumstances does the specific character of infectious diseases for the most part take its origin. Upon the principles of Dr. A., should not typhus always be at pretty nearly the same standard in point of prevalence? and why should it be epidemic at one time, and merely accidental at another? If to this query the advocate of exclusive contagion replies, we must concede a great deal to the modifying power of the epidemic atmosphere, he at once shifts himself from his strongest position, and admits the objections of his opponents; since the very idea of a specific, *ab-origine* contagion implies a power operating without the aid of what is about and around us: and, as we have just said, neither typhus nor any other infectious distempers ought to be susceptible of any difference in

* In respect of critical days, according to the common acceptation of the term, Dr. Armstrong avows himself to be exceedingly sceptical.

frequency, except what would result from the greater or less number of contagious points with which individuals might come in contact. It has repeatedly happened to us in the course of our practice, more especially among the poor, to witness in one family, and in one moment of time, all the three different *kinds* of fever, as Dr. A. and his followers would term them; but which we should denominate *degrees* of the same disorder, under an impression that they each and all of them arose from the same source, and were mild, median, or malignant, according to the greater or less energy with which the febrile virus had acted, and according to the peculiarities of the individuals who had been subjected to its influence.

This seems to be the opinion of Dr. Jackson, who has recently put forth a very interesting volume on the rationale and treatment of fever*; and although we do not entirely agree with this author as to the local, and, as it were, tangible origin of idiopathic fever, (a term, indeed, which his principles would lead him to reject,) we think that both as it regards the mode of the disorder's establishment in the system, and the different manner in which it is communicated, there is much to admire and to follow in his arguments and positions. It is curious to observe the difference of sentiment with respect to the general merits of this author, that the lapse of a short time has effected. Less than twenty years since the tide of professional feeling set in strongly against Dr. Jackson, his theories, his practice, and his language: the first were said to be false, the second mischievous, and the third absurdly figurative, and cabalistically unmeaning, while his rival, Dr. Currie, was then held in veneration; and now we scarcely ever hear of this last amiable and excellent author, as either a theoretical guide or practical authority, while the speculations and practice of Dr. J. are coming to be received, not only with temperate good will, but with decided approbation. *Sic tempora mutantur, et nos mutamur in illis.* For ourselves, while we readily award to this veteran author (Dr. Jackson) the meed of due praise for the ingenuity, integrity, and independence of thought and act that his writings have all along displayed, we must confess a radical difference of opinion with him as to the formation of the first link in the chain of those disordered actions that together constitute the state of fever. Some par-

* A Sketch (analytical) of the History and Cure of Contagious Fever. By Robert Jackson, M.D.

ticular tissue, according to Dr. J., is primarily and immediately engaged with the disease-creating power, and by the local disturbance thus engendered is the whole commotion set on foot; whereas we conceive that the series of deranged movements commences by a *general shock* given to the whole sensorial system, and that the local irritations are secondary, subordinate, and incidental; modifying greatly, if you please, the future type and tendencies of the malady to an extreme variety both in nature and degree; *but not from the first constituting its essence.*

As to the treatment, our author alludes in a somewhat triumphant manner,—and he has good cause so to do,—to that general feeling which in this day prevails in favour of dicta, in the enunciation of which he formerly encountered opposition and obloquy:—

“The doctrines (says he) and practices of Physicians are, like most other things in this sublunary system, liable to fluctuate and change. The change which has lately taken place in Great Britain in the manner of treating febrile diseases, particularly in treating the contagious fever known by the name of typhus, may be termed a revolution. The theoretical doctrine respecting the nature of the disease appears to be abandoned; the practical proceeding is not modified, but literally *reversed*. Blood-letting, which twenty years ago was reprobated as murder, direct or indirect, is now not only admitted among the remedies, but extolled above all remedies.”

We now take our leave of Dr. Jackson with great respect for his talents, and with every wish that his declining years may be as comfortable and happy as is consistent with the imperfection and frailty of our being. The next author, on the subject of fever, which presents himself before us for this cursory review, is Dr. Grattan*; and it is with much pleasure that we can speak of his little tract in terms of almost unqualified approbation: both the pathology and practice of Dr. G. accord with our own notions beyond almost any writer whom we have had occasion to mention. We recommend the attentive perusal of the whole pamphlet to our readers, while we must confine ourselves to a very few extracts in addition to, and in justification of, the high praise we thus bestow upon its contents.

First, as to the causes generally of epidemic visitations:—

“In reasoning upon a subject so complicated, and of such extent in its relation to the previous and existing state of society, and one so likely to be modified by passing events, as the origin and progress of

* Medical Report of the Fever Hospital and House of Recovery, Cork Street, Dublin. By Richard Grattan, M.D. &c. &c.

an epidemic, we should not affect too much simplicity, nor should we endeavour to ascribe to a single cause that which has probably been the result of several. If, as has been asserted, 'deficiency, as well as vitiation of nutriment, is to be considered a chief source of epidemics,' how comes it to pass that an epidemic does not uniformly occur whenever nutriment becomes deficient or depraved? or how does it happen, that where provisions are not only good, but abundant, the most dreadful epidemics have prevailed?—Provisions had seldom been more plenty in London than at the time when the plague of 1665 first appeared, and which we are told by Sydenham arrived so rapidly at its acmé, that about the autumnal equinox, in one week alone nearly 8,000 persons perished, although not less than two-thirds of the inhabitants had previously fled from the city to avoid the contagion*.

"On the other hand we have numerous instances of persons suffering the most extreme privations, and living for a length of time on food tainted to such a degree as to become in itself nearly a source of infection. Under such circumstances we know that life has often been protracted to an almost incredible period; and that when death has at last taken place, it was produced not by fever, but by inanition, or some disease consequent on it. Can we then, with such facts before us, give our assent to the proposition, that fever is principally caused by 'a want of wholesome food?' Those who maintain this doctrine assuredly take too limited a view of the subject, and overlook many other circumstances to which epidemics may with greater justice be ascribed. Not to speak of contagion, the power of which, in propagating the continued fevers of our climate, is clearly ascertained, are there no other causes capable of producing fever? or, in doubting that epidemics always proceed from want and distress, shall we run into the opposite extreme, and refer every individual case of fever to contagion alone?"—

"It is contended by some Physicians of the first character and talent, that no condition of the animal economy, or combination of external agents, can occasion typhous fever, unless contagion shall have been applied to the system; in short, that where contagion has not been introduced, there fever cannot make its appearance. It is not easy to understand upon what grounds this opinion is founded; at least the reasons assigned for it do not appear to me sufficiently convincing. From the facts now so well known with respect to the contagious nature of exanthematous fevers, the strongest arguments,

* "Opera Universa, Sydenham, ed. tertia, p. 70.—On this occasion, Sydenham, though he evidently clings to his favourite theory of the 'epidemic constitution of the air,' is forced to admit its insufficiency as a general explanation, and acknowledges that contagion must exert a certain influence; candidly observing, '*Aliàs enim non assequor, quî fiat ut in eodem cœli tractu dum unum aliquod oppidum peste gravissimè affligitur, aliud non longe dissitum, omnem commercii necessitudinem cum loco contagioso cautè inhibendo, prorsus immune se præstiterit.*'" Page 73.

it is true, have been brought forward to prove that ordinary fevers are also contagious; but to press the argument further, and to conclude that all other fevers precisely resemble them in the manner in which they originate, would be far more than facts will warrant. Because the measles and small-pox are communicated only by contagion, are we therefore to assume, that all other fevers can be communicated only in the same way? Because it is admitted that measles and small-pox do not originate spontaneously, must we therefore, to be consistent, deny the spontaneous origin of typhous fever? It does not follow that, because a partial resemblance may exist between certain diseases, an equal similarity must prevail in other respects. We might with as much reason conclude that the eruptions should be the same both in the small-pox and measles, as suppose that typhous fevers never originate spontaneously, because like the former diseases they are contagious, and are often attended with eruptions. There is in fact no essential connexion between the idea of contagion and the mode in which the contagious principle has originated. The history of medicine furnishes us with instances of diseases extremely contagious appearing for the first time, and spreading with rapidity. We are not surely to suppose that the infectious principle had remained latent since the creation, and was called into action by a coincidence of circumstances favourable to its perfect development. It is at least as easy to conceive that the fortuitous concurrence of causes favourable to the generation of contagion, and to its subsequent dissemination, has at various periods given rise to those diseases which have afterwards spread from one individual to another."

Such are precisely our own sentiments on the question of epidemic and contagious influence; and we never witnessed a clearer exposition of what appears to us to be the truth of the case. We find our author equally satisfactory in developing the circumstances of the febrile state.

"The doctrine that *all* fevers are essentially inflammatory, has not yet received sufficient confirmation, either from pathological reasoning, or from anatomical research, to satisfy us of its accuracy; and until it shall be clearly proved that such is the case, those physicians who entertain a contrary opinion, and refer the immediate cause of fever to a disordered state of the nervous system, altogether distinct from inflammation, have at least an equal right to presume that their theory is correct.

"As far as anatomical investigation goes, it would appear that in many cases of death from fever, no traces of inflammation were observable after death; and if only a single instance of this kind could be advanced, it would be sufficient to overturn the opposite opinion. That such cases do occur, must appear evident from the observations of Dr. Macartney and Mr. Kirby, directed expressly to this subject, and published in the 2d volume of the Transactions of the Dublin College of Physicians. The opportunities which these gentlemen possess, and their acknowledged ability as anatomists, give to their testimony on this subject, and one so completely within their

province, a degree of authority which cannot easily be questioned. We are also told, that out of ten cases of the yellow fever of the West Indies, of a peculiarly aggravated kind, and where much delirium had been present, the brain did not exhibit any marked appearance of disease*.

"I do not pretend to deny that the brain, or any other organ of the body, can be occupied by inflammation during the continuance of fever. On the contrary, I am persuaded it often happens that, in the course of the fever, congestions of blood, and its unequal and irregular distribution, do actually occur in different organs, varying in degree from the lowest kind of passive congestion to the most marked and decided form of active inflammation. *In every instance, however, this congestion, or active inflammation, of what kind soever it may be, is secondary, and depends on the peculiar state of the nervous system, the only part primarily and essentially affected.* In what this condition of the nervous system consists I do not presume to explain, and I fear it is one of those secrets which Nature will for ever conceal from us. Anatomical research cannot elucidate it, in as much as it is a modification of that unknown influence, the principle of life itself, which must cease to exist before the anatomist can have commenced his inquiries.

"The doctrine which teaches that fever is a disease of the nervous system, and at the same time admits that this diseased action does often occasion local inflammation, seems to be nearer to the truth than if we were to ascribe fever to either of these causes exclusively. It embraces both theories, and in a practical point of view comprehends every case, and every variety of treatment which can be employed in the management of fever. From an attentive consideration of the subject, and from such observations as I have been able to found on my own experience, I can affirm, that it leads to the most successful practice in the fever which now prevails in Ireland, and which is identical in its nature and symptoms with the ordinary fever that has always existed in this country. Its obvious tendency is to substitute a rational treatment for blind empiricism, to cause the Physician to reflect before he prescribes, and while it inculcates prudence, it by no means precludes him from adopting the most active measures in those cases in which they may appear to be necessary. It does not lead him to think lightly of experience, or to look upon the symptoms of the disease as unimportant; nor does it, by referring them all invariably to one simple condition of the system, and laying down a certain mode of treatment, expressly adapted to that supposed condition, render the business of prescribing a mere mechanical proceeding. So far it is certainly less showy, and presents fewer attractions to those who find it more easy to adopt at once a general theory, and particularly one which requires scarcely any discrimination in its application."

Dr. G.'s practical rules also bear the stamp throughout of a mind which is neither disposed to give in to plans

* Johnson on Tropical Climates, page 350.

and practices, merely because they are fashionable; nor, on the other hand, obstinately to oppose improvements on the score of their being innovations on already accredited institutes. Were we to give way to our feelings without consulting our limits, we should transcribe into our pages the whole of what is advanced on the head of blood-letting in fever, especially in its connexion with pulmonary inflammation: we are, however, reluctantly compelled here to close our account with the present author, and refer the reader to the pamphlet itself for an admirable display of candid feeling, sound judgment, good taste, and extensive research.

The last work we have to notice on the head of fever is a pamphlet written by Dr. Crampton*, which differs somewhat from the view taken by Dr. Grattan on the pathology of the disease, and contends, in common with many other able authors of the present day, that the inflammation of fever has nothing in it of a peculiar distinctive kind. In opposition to Dr. Barker's statement, "that the congestions observed after typhous fever differ from those of genuine inflammation," Dr. C. introduces the following allegations:—

"It is very possible in the onset of fever, that congestion or distention of the vessels of the brain, in addition to other derangements of the cerebral system, may be present, but that it is by no means limited to the venous system: this congestive state, however, soon passes into the inflammatory in the severe cases, unless measures are taken to prevent it. Far be it from me to say that inflammation is the cause of fever, or that it is necessarily present in every instance; the contrary I believe is the fact in the greater majority of the mild cases; but the appearances mentioned, and the important changes of structure induced, warrant me in asserting, that in the greater number of severe cases legitimate inflammatory symptoms sooner or later become evolved, and that it is by looking to these that the mortality in fever on a large scale is chiefly to be prevented."

On syphilitic, and pseudo-syphilitic affections, it is remarkable that so little has made its appearance during the preceding years, when we consider the anxiety with which the Practitioners of Surgery must necessarily await the experiments that have been instituted on the bold principle of treating even several forms of true lues without the administration of mercury. We opened the new edition of Mr. Jesse Foot's elaborate work on the lues venerea, with full

* Medical Report of the Fever Department in Steevens' Hospital. By John Crampton, M.D. &c.

† A Complete Treatise on the Nature, Symptoms, and Cure of the Lues Venerea, &c.: a new edition, amended and corrected. By Jesse Foot, Esq. Surgeon.

expectation of seeing more decided allusions to the doctrines that have recently been broached, but were disappointed by the sort of dignified silence which the writer maintains in reference to this particular. We find, indeed, a good deal of additional matter in Mr. F.'s publication to what was contained in the last edition; and although there will ever remain considerable objections to this work, on the score of its dogmatism and disinclination to view things in any other way than through a prejudiced, and in many cases a fallacious medium, there is, it must be acknowledged, much in its pages that is highly worthy the consideration of the industrious student. Swediaur's *Treatise* too*, of which a new edition has lately been published, ought to be in the hands of every inquirer into the history and peculiarities of venereal affections.

Mr. Evans's work on disorders of the genitalst that are not syphilitic, is a tract possessing very considerable merit; and as it is the only one that has lately been issued precisely on the topic of pseudo-syphilitic affection, we shall indulge ourselves in a more particular account of its contents.

Mr. Evans divides those affections of the genital organs which are independent on syphilitic virus, into two orders, the first of which arise without sexual communication; the second, although not venereal, are the results generally, or entirely, of sexual intercourse. Under the first head, he enumerates *Phlegmon*, *Anthrax*, *Tubercula*, *Herpes preputialis*, and *Ulcus erraticum*. The second division comprehends *Excoratio*, *Erysipelas*, *Venerola vulgaris*, *Venerola superficialis*, and *Venerola indurata*.

Phlegmon of the prepuce, or penis, which has been confounded with chancre, is characterized in the first instance by thickening tumefaction and the rapidity of its progress towards suppuration. Its edge in the after part of the ulcerative stage is "undermined."

Anthrax is with difficulty distinguished from mere phlegmon. If, however, we see a tumour on the penis resembling phlegmon, and there be vesications upon it, the chancres are, we shall be right in pronouncing it anthrax.

Tubercles are of two kinds: the first is probably the same affection as is termed *moluscum* by Dr. Bateman: it is a

* A Comprehensive Treatise on the Symptoms, Consequences, Nature, and Treatment, of Venereal or Syphilitic Diseases. Translated from the seventh French edition of F. Swediaur, M.D.

† Pathological and Practical Remarks on Ulceration of the Genital Organs, &c. By James Evans, Surgeon of his Majesty's 57th regiment.

circular and rather flattened tumour, of the same colour as the surrounding integument, of which it appears an elevation; but if a lancet be passed into it, a cream-like fluid is found within. They often exist for years, and are considered as warts. At other times inflammation is excited, and they shrink up, and disappear. They much resemble in shape a vaccine vesicle.

The other bears somewhat the same appearance as does the first kind; but when the inflammatory action takes place in this, a small pustule arises instead of that shrinking up observed in the other.

The herpes preputialis can only excite the notion of chancre, on the part of the patient, when it takes place on the *inner* surface of the prepuce. It is described by Dr. Bateman, in his work on cutaneous diseases. Its cause is, for the most part, a derangement in the *primæ viæ*.

The psoriasis preputialis appears in the form of deep marks or chasms around the margin of the prepuce. The discharge from it is of a glutinous nature until the morbid action ceases, when it becomes purulent, and then the healing process begins, which is often very tedious. It is apt to give rise to bubo.

The *ulcus erraticum* begins by the formation of a small pustule. It is, as noticed by Mr. Abernethy, herpetic, and is marked by unhealthy granulations, alternating with foul excavations.

Excoratio is the first of the diseases enumerated among those which arise from sexual intercourse. It appears in irregular patches, accompanied by itching, and is attended with increased and altered secretion and redness. It arises from mere friction, or from connexion while the glans and prepuce are in a state of irritation from neglect of cleanliness.

Erysipelas very much resembles excoriation; but its sudden appearance without any known cause, and its changing its place, will be sufficient, in many cases, to point out the disease to be erysipelas.

Venerola vulgaris is more frequently met with than all other ulcerations of the generative organs put together. Though it most frequently affects the penis, it is occasionally met with on various parts of the thighs. It is at first pustular; it is secondly ulcerative; thirdly, elevated or granulating; and fourthly, it is depressed, and cicatrizes. It commences usually from three to seven days after connexion, and begins with itching and redness, followed by the formation of a sphericle pustule, surrounded by an areola. The second stage commences about the sixth or seventh day of the disease: it is ushered in by the formation of a scab, supplying

the place of a pustule, which, when removed, exposes a concave ulcer with a glossy brown, and unhealthy red, or still more commonly a dirty yellow surface. In two or three days more there is a filling or rising up of the surface of the sore, which eventually becomes seated upon a fungus raised above the level of the surrounding parts: it is in this stage, and by these marks, that this ulcer may always be distinguished from any other sore affecting these parts. It is from the fourteenth to the eighteenth day that the sore has usually risen to its greatest height: it then remains stationary for some time, after which it gradually, though very slowly, declines and heals, which process forms the fourth stage.

This disease may arise from the application of matter from a sore of the same description, or from altered secretion without any breach of surface, or discernible disease in the female organ, or from gonorrhœal matter; or perhaps spontaneously.

Mercury, in this affection, is never necessary, and very often detrimental.

Venerola superficialis principally differs from the *venerola vulgaris*, first, in the defectiveness of the ulcerative process by which it is prevented from becoming an excavated sore; and, secondly, by the absence (with a few exceptions) of the elevated edge and surface. It seems to be a spurious kind of the preceding affection proceeding from the same causes. The same may be said of the ulcer last designated, viz.

Venerola indurata. In the first stage of this last affection the ulcer is so indistinctly marked, that it may be taken for a mere erysipelas; in other cases it may be thought to be only excoriation. Sooner or later, however, this complaint assumes its characteristic mark, the base becomes of a *cartilaginous hardness* unless the sore should be seated on the glans. The specific action in this disease does not appear to extend beyond the hardened base; for if the diseased portion be removed by the knife, the wound heals as if no morbid action had previously existed in the part. When there is much constitutional derangement present, or the individual is in unfavourable circumstances, gangrene has been known to take place as early as twenty-four hours after the appearance of the disease, and in less than seventy-two hours after connexion. The induration in this disease, unlike that in *venerola vulgaris*, has a flat surface, and lies superficially.

In an appendix to this little volume its author introduces some remarks on sloughing, for the purpose partly of proving that this process is usually the consequence of

constitutional derangement acting on the part, and does not arise from the application of a particular virus.

It will be observed, that in the above slender analysis we have confined ourselves to the descriptive portion of Mr. Evans's treatise, as our business on the present occasion is that especially of pseudo-syphilitic adversion. When Mr. E. shall have completed his design of presenting a detail of his knowledge and practice, we mean to bring under one general review both divisions of his publication.

We now proceed to a slight notice of those volumes of the last half year, which may be arranged under the head of Pathology and Practice of Medicine.

PATHOLOGY AND PRACTICE.

THE first part of the first volume that falls before us for notice* within this division, might with more propriety have found a place under the head of physiology, since it is mainly constituted of arguments to prove the error of those principles which see nothing in man beyond blood vessel, nerve, bone, and fibre: but we really are sick of this never ending disputation; and the decisions upon it fall much more properly, as we have several times intimated, under the cognizance of other judicature than that of medicine. As to the medical portion of Mr. Mansford's volume, we may briefly say, that our author is a convert to the galvanic theory of nervous energy, and on that theory he has founded curative indications in such cases of epilepsy as are not hopelessly irremediable from particular conformation or actual disorganization. For his mode of applying the galvanic stimulus, we must refer the reader to the work itself, in which will be found some very sound pathology and very good writing. For ourselves, we are always disposed to receive accounts of cure founded upon particular views in physiology with some degree of scepticism; but of this the reader may be assured, that Mr. Mansford never puts forth any thing in the way of publication that is not entitled to respectful attention. His cases, we may add, are detailed with every appearance of candour, and disposition to admit unfavourable as well as more fortunate occurrences; but, some how or other, the operations of remedies, as well as the results of experiments, are, even by the most respectable among Physicians and philosophers, found too much to harmonize with particular presentiments.

* Remarks on the Nature and Causes of Epilepsy, as connected with the Physiology of Animal Life and Muscular Motion, &c. By John G. Mansford.

Dr. Black's Clinical and Pathological Reports* consist principally of a reprint of papers, which are already before the public in the transactions of societies. The first subject of which this author treats, is angina pectoris, and his theory of the disease is, that an ossific disposition prevails for the most part in the system prior to its establishment, and that the cardiac disorder is one result of this diathesis. He supposes that the complaint may at some future time be forestalled by a further investigation of those chemical conditions which occasion the ossific deposit, so as to institute a medico-chemical treatment, as in the case of urinary calculi. There is no harm in holding out such expectations, provided that we cease to generalize and infer until we have more precise data from which to deduce our inferences. As things now stand, we are doubtful whether any condition, either of the whole body or the cardiac system, can properly be said to be implicated in angina pectoris; nay, we think that even the predicating and naming this as a particular *sui generis* malady, is aiming at more than we are authorized by facts to attempt.

The succeeding papers on affections of the brain, we have already noticed in our reviews of those excellent volumes published by the Queen's College of Physicians in Ireland. Two instructive cases follow these, of chronic peritonitis, in which the ruinous consequences of stimulating under the idea of debility, are well pointed out. A case of otitis is then detailed, in which there was a remarkable metastasis of the ear inflammation to the pulmonary organs. We are lastly presented with two cases of diabetes mellitus, the whole circumstances and bearings of which justify, in Dr. Black's mind, "the probability that a chemical condition of the blood deviating from the healthy in being derived from an unusual description of chyle, which includes in it substantially, though not formally, the elements of sugar, while it is deficient in the elements of urea, excites in the kidney that specific action by which the stimulus to secrete sugar is communicated."

Part of the next volume to be noticed† might have found a more appropriate situation in connexion with Mr. Evans's treatise; for Dr. Hamilton takes occasion to express his opinion respecting the question before the medical public, viz. whether it is proper and safe to attempt the cure of true lues venerea without mercury? We must make room

* Clinical and Pathological Reports. By Samuel Black, M.D.

† Observations on the Use and Abuse of Mercurial Medicines in various Diseases. By James Hamilton, jun. M.D. &c.

for our present author's conclusions on this controverted point. These conclusions are, first, that primary sores ought not to be treated topically by mercury, till their real nature be ascertained. Secondly, That in the treatment of true syphilis every possible care ought to be taken to guard against over excitement. 3dly. That a much milder course of mercury than had hitherto been supposed is efficacious, under proper regulations. 4th. *That decoctions of sarsaparilla have about the same antisyphilitic virtue* as water-gruel. Upon the whole, Dr. H. enters his most solemn and earnest protest against the attempt, at least in private practice, of treating syphilis without mercury. Dr. H. takes occasion here to oppose the hypothesis of John Hunter, that the infant born with syphilis can only have contracted the disorder from coming in contact with the diseased parts of the mother, by the recital of a case, and by allusions to others, in which children have come into the world with their nates covered with true venereal blotches, the mothers of such children never having themselves been the subjects of syphilitic affections at any period of their lives.

Dr. H. records another case, which he thinks still more decisive against Mr. Hunter's hypothesis, viz. that of a child being born with its nates and feet covered with copper-coloured blotches, the mother of which had venereal chancres at the time of delivery; and the arm of the infant was protruded for seven hours, part of it, of course, being for that time in contact with the ulcers on the genitals of the mother; notwithstanding which, although the child was generally diseased, "no affection whatever appeared on the arm."

Dr. H. is likewise a convert to the opinion of Mr. Benjamin Bell, that the male parent, although apparently in health, and while the female parent is actually free from the disease, may infect the offspring. It is equally certain, he says, that the disease may be transmitted solely from the female parent to the child in the womb; and he thinks it further established by incontrovertible evidence, that this congenital syphilis cannot be conquered by the natural powers of the constitution. This section of the book is concluded by repeating the reprobation before introduced, of attempting the cure of genuine syphilis without the only real antidote to the virus hitherto discovered, viz. mercury.

The other portions of Dr. H.'s volume mainly consist of strictures upon that indiscriminate employment of this medicine, which modern practice has too much authorized, in several chronic complaints accompanied by irritation. In chronic hepatitis, for instance, he asserts that "the ordinary mode of exhibiting mercury not unfrequently hurries on the

disease ; or, by impairing the constitution, lays the foundation for paralytic affections : and it may be truly affirmed, that it thus often shortens life." Affections of the stomach too, even when symptomatic of other visceral obstructions, are often improperly treated by mercury, according to Dr. Hamilton. Under this head we meet with a recommendation of *ol. terebinth. rect.* combined with the *ol. ricini*, as constituting the very best temporary laxative which can be prescribed, in cases especially of undue action in the large intestines. We allude particularly to this recommendation, from having ourselves experienced its rectitude and importance ; and we have found with Dr. Hamilton, that while " turpentine thus managed produces unequivocally an increased evacuation of *feces*, sometimes in a wonderful degree, it occasions none of the feelings of exhaustion which so usually follow the operation of many purgative medicines."

Dr. H. thinks that several of Mr. Abernethy's " hepatic cases" were, in fact, affections of the duodenum. In this we think him quite correct ; and it will be in the recollection of many of our readers, that we have taken frequent opportunities of endeavouring to check that indolent generalization, which charges the liver with the production of almost every disease to which the frame is obnoxious. Our author is not friendly to the calomel system exclusively employed in cases of croup, according to the recommendation and adoption of some Practitioners of the present day ; and he condemns the principle of giving mercury in simple *iritis*, unaccompanied with syphilitic taint, denying the justice of Dr. Farre's allegation, that " mercury suspends the effusion of coagulable lymph."

[Here we are reluctantly obliged to obey the commands of the Printer to desist, and must therefore defer the conclusion of our " General Review" to the next Number.]

PART III.

SELECTIONS.

An Account of the good Effects of the white Oxide of Bismuth in a very severe Stomach Affection of a Gentleman far advanced in Years. By G. D. YEATS, M.D., F.R.S., Fellow of the Royal College of Physicians, &c.

(Communicated by the Author.)

MANY years have now elapsed since Dr. Marcet published a very clear and explicit account of the good effects of the
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white oxide of bismuth in certain painful conditions of the stomach. Relying upon the recommendation of this medicine, as coming from so respectable an authority, other Practitioners very soon made trial of it, and were much gratified in finding that it answered the expectations of the curative powers which had been attributed to it. Among those who have since more particularly called the attention of Physicians to this subject, is Dr. Bardsley, of Manchester, who, in 1807, published some interesting and instructive cases in his Medical Reports. Some insulated cases have also been published in the medical journals, confirming the high character given to the medical virtues of the oxide of this metal. In reviewing the cases which have been presented to the public, I do not find the age of any one patient to exceed fifty-five years; and as the patient, whose case I am about to relate, had for a long period of years been afflicted with distressing pains of the stomach, was past seventy when the treatment was first commenced, and when the symptoms were so violent as justly to excite a suspicion of much organic mischief about the stomach, I am induced to believe that a detail of it will add considerably to the good opinion entertained of the bismuth, and will contribute to diffuse still wider the benefits to be derived from an exhibition of this valuable medicine. I am aware that the result of the operation of a medicine in an individual case can prove nothing decisively of its good effects; but when such individual statement comes in confirmation of many other cases, it must have its weight in the recommendation of the adoption of a medicine not previously very generally resorted to. In this point of view, therefore, I trust the perusal of the following case will not be without its utility.

January 21, 1816. P——C——, Esq. æt. 71, complained, at the beginning of winter, of pain about the pit of the stomach, attended with much eructation of wind, and costiveness. The appetite is rather deficient, but it varies; it is not accompanied by any morbid thirst; the tongue is foul; pulse full, slow, and soft; a wasting of the flesh has taken place; the urine is of the natural colour and quantity; there is nothing remarkable in the colour of the fæces. No uneasiness is complained of by pressure on the epigastric region. The pain is troublesome at various times during the day, but is most distressing between ten and eleven o'clock at night, when it comes on with intolerable violence, and to such an extent as to cause vomiting, when the matters thrown up are very liquid, great in quantity, and extremely acid; some relief from pain is then obtained. Sometimes the pain returns in the night, so as to destroy rest. It occasionally shoots to the back, and produces a slight dyspnœa for a short time. The

pain is not brought on immediately upon taking food, but he describes it as occurring about three hours after meals, by a kind of fermentation, and a sensation of weight, as if the food had never passed from the stomach. In the winter of 1814 these distressing symptoms continued so long, and with such violence, as greatly to injure his general health, and to produce a considerable degree of emaciation, with a dry brown tongue, and a slow, weak, intermitting pulse. At that time he was restored, after some mercurial medicines, by the *mistura ferri composita*; but he was never long free from pain, although it was much mitigated. At the beginning of the ensuing winter it returned with considerable violence, when the *mistura ferri* was again resorted to, with some temporary relief. Bark and various other remedies have been given without benefit; the most immediate relief has always been obtained by large doses of magnesia and chalk in cinnamon water. The dose of these absorbents was taken in such quantities as to produce an uniform white appearance in the *feculent* discharge. Reflecting on the cases which had been published, and in which the white oxide of bismuth is so strongly recommended, I determined to have recourse to it. Accordingly, about six weeks ago, he began with five grains three times a day, mixed with some tragacanth powder. Relief being obtained, the dose was increased to eight, then ten, and lastly to twelve grains, thrice a day, with such decidedly good effects, that P. C—— called upon me yesterday, and said he had been free from pain and uneasiness for some time, although he had occasionally, by way of experiment, indulged with impunity in such articles of food as had formerly very much disagreed; and that he had omitted taking the powders for four days, and no pain had returned. The bowels had been generally regular, but it was sometimes necessary to take a few grains of the compound of extract colocynth. Thus this venerable gentleman has, for the last three years, enjoyed considerable comfort by the use of this medicine; and this relief from pain he would, most probably, not have experienced, but for the bismuth; for, during the three years which have elapsed since he first took it, the pain has at times returned, but has been uniformly removed, by having recourse to this mineral. Having experienced its good effects in this way, he has always had a packet of the white oxide by him, and, when necessary, has taken a small quantity in a tea-spoon, without weighing it, every evening for several nights. Age, and its attendant infirmities, are now, I regret to state, pressing upon him, as society will be deprived of one of its most useful and valuable members. His old grievance is occasionally troublesome, with the other

symptoms of declining years; and the probability is, that some organic disease exists about the stomach, most likely towards its pyloric orifice, the progress of which has been materially impeded, with always a great diminution, and occasionally a total loss of pain for a considerable space of time. His comforts have, therefore, been greatly increased; and the approach of the infirmities of age procrastinated by the use of the bismuth. It is here worthy of remark, that the long-continued use of this medicine is productive of no bad consequences, as is the case with some remedies which produce temporary and beneficial effect, but whose continued exhibition becomes injurious to health. Care should be taken to have the white oxide of bismuth quite pure, as it is apt to be mixed with noxious ingredients in its native state before it is reduced to an oxide.

(From the *Quarterly Journal of Science*.)

PART IV.

FOREIGN MEDICAL SCIENCE AND LITERATURE.

RETROSPECT OF FOREIGN MEDICAL SCIENCE AND LITERATURE, FOR THE YEAR 1819.

ANALYSIS OF FOREIGN PERIODICAL LITERATURE CONTINUED*.

NEW JOURNAL OF MEDICINE, SURGERY, AND PHARMACY.

OCTOBER, 1819.—*Original*.—*Case of a Calculus of extraordinary volume found in the left Kidney, &c.* By Dr. Forestier.—A lady, aged forty, suffered pains in the left side of the abdomen, with general uneasiness and fever. The urine was turbid, and deposited a whitish sediment. After temporary relief from medicine the affection recurred, and menstruation first became irregular. An examination was made, and the symptoms referred to a scirrhus enlargement of the left ovary and fallopian tube. About the close of 1816, an attack more violent than ever was sustained and again relieved. In April 1819, from excessive fatigue and perspiration, inflammatory rheumatic pains, with swelling of the neck, limbs, and joints: these subsided, but the symptoms of the old complaint constantly grew worse. The urine was

* See last Number of the *REPOSITORY*, page 172.

intolerably fetid, and contained a larger proportion of pus. This proportion, however, invariably increased during the paroxysms of pain, and was lessened in the intervals. The fluid was voided without pain or difficulty, and free from all admixture of blood or concretions. Catarrhal affection of the bladder was now suspected. The urine consisted of more than half its quantity of fetid blackish-brown pus. Ulceration of the left kidney was announced in consultation. A fixed obtuse pain only was felt in the left side, but continual and intolerable uneasiness prevailed. Repose was gone, and every kind of aliment instantly rejected by vomiting. Death, September 15th.—Dissection. Integuments of the left side of the abdomen marked with bluish-red spots, and elevated by a tumour. On opening the abdomen, a soft and reddish tumour on the left, extending from the false ribs, where it compressed the spleen and great curvature of the stomach, to the iliac fossa; resting posteriorly on the psoas muscle, and covered anteriorly by the small intestines and abdominal parietes. It was of an ovoid figure, seven inches by five, and formed by the left kidney disorganized. A prodigious quantity of brown and excessively fetid pus escaped on incising it; and a large irregularly shaped urinary concretion presented at the orifice. On introducing the finger, a second cyst was discovered, and afterwards several smaller, which yielded a quantity of less offensive purulent matter. A smooth brown prismatic calculus as large as a plum stone, and some others of a smaller volume, were also evacuated. The whole left kidney was disorganized, and its substance soft, except at its superior and posterior part. The ureter at its exit from the kidney was prodigiously dilated, but diminished in its descent towards the bladder. It was filled with pus resembling that of the first cyst; its internal membrane blackish and smooth. The pelvis and several of the adjacent infundibula were greatly distended by the larger calculus. Some small concretions, smooth and of a different species, were also found in the infundibula with a quantity of sand, and another collection of greenish and offensive pus. The whole of the calculi weighed two ounces. The abdominal viscera were sound. The bladder very small, its internal membrane blackish, contained a small quantity of fetid fluid, urine, and pus. Right kidney unaffected. The vomiting is referred to the increasing pressure of the renal tumour on the stomach, or irritation propagated from the renal to the gastric nerves. The great size and arborescent figure of the larger concretion, represented by a coarse engraving.

Case of Malignant Erysipelas, which proved fatal on the second day. By Dr. Hervey de Chégoïn.—Subject, a man

aged fifty-five. Symptoms very briefly described. Affection commenced in the right leg. Treatment: emetic, diluents, counter-irritants, cinchona. Body not inspected.

Case of a Child whose Eyes were destitute of Iris. By Mr. Alexander Morison.—The production of an English Practitioner who solicits the honour of becoming a member of the “*Société du Cercle Médicale*”. In “a Report” which follows, the accuracy of Mr. Morison’s observation is questioned, and a conjecture advanced that the affection is mydriasis, (unnatural dilatation of the pupil). Relief, the French writer suggests, may at all events be obtained from the employment of pasteboard spectacles, the disks of which are perforated in the centre by a small orifice, such as are used with success in accidental mydriasis or strabismus.

Case of Retention of Urine, cured by two successive punctures of the bladder from the rectum. By M. Magnan.—In this case, the retention was consequent on violent injury of the perinæum, inducing inflammation of the bulb of the urethra, and characterized by fever, vomiting, urinary odour of the mouth, and perspiration, dyspnœa, and anxiety. Puncture from the rectum afforded immediate relief. On the third day the canula was accidentally displaced, and the symptoms recurred. Again introduced; it was withdrawn in a week, the urine having resumed its natural course. A small tumour subsequently formed in the perinæum, which shortly disappeared, after having given issue to a little urinary fluid.

NOVEMBER.—*Original.—Remarkable Pathological Case, preceded by some Reflections on Morbid Anatomy.*—The author demonstrates in a clear and judicious manner the importance of morbid anatomy; and concludes, from observations detailed at considerable length, first, that the isolated knowledge of causes and symptoms is but of secondary importance; secondly, that the knowledge acquired by signs of the genus and seat of a disease, is the only positive knowledge in medicine, and can alone raise it to the rank of the other natural sciences; and thirdly, that dissection alone can lead to a result so desirable, and that every thing unsupported on this kind of observation is vague and empirical.—The case is that of a spare female, aged sixty-four, who from middle life had sustained repeated attacks of gout, but without any trace of it left in the limbs. The appearance of the menses at sixteen, and cessation at forty, had been neither preceded nor followed by disease. In May 1819, pain in the right hypochondrium without known cause; at first slight, afterwards lancinating and striking towards the corresponding iliac region; urine, at the same time, bloody. Pain had been preceded by bitterness of mouth, eructations, and vomiting.

sometimes in a morning before taking food, never after it. Little appetite, but ingestion of food, not followed by inconvenience. Diarrhœa in June, continuing till August 24th. Symptoms at that period: general emaciation; legs swollen; skin and respiration natural; pulse frequent and regular; tongue red at the point and borders, blackish at the base; no appetite; disagreeable morning eructations; abdomen distended; and, on percussion with a dry body, sounding hollow every where except for about three inches below the right false ribs, where a circumscribed, fluctuating, and somewhat painful tumour was discovered. It was smooth, and extended from the lower part of the liver to the centre of the space between the ribs and ilium. Various conjectures were formed respecting the nature of the tumour. Encysted tumour of the liver, abscess of this organ, or of the corresponding peritonæum; an organic affection of the stomach or kidney successively suggested themselves to the medical attendants. The last was obviously most probable. The patient's sufferings meanwhile were severe. She stooped in walking, which was impracticable without support. The tumour did not sensibly increase; vomiting and appetite gone; marasmus. Death on the 22d of November. Dissection on the 24th.—Exterior: general emaciation; legs œdematous. Thorax: much serum in both cavities. Left lung posteriorly adherent. Heart firm; its left ventricle much contracted by thickening of parietes, probably caused by obstructed state of the abdominal circulation. Abdomen: effusion of blackish serum. Peritonæum black, but without trace of inflammation, particularly where it invested the anterior abdominal paries, small intestine, cœcum, and ascending colon, and in the mesentery and omentum. An enormous tumour below the liver, extending to the right iliac cavity, and covering the stomach, formed by the superior fourth part of the right kidney, which was converted into a large cyst, filled with a fawn coloured, violet, blackish, and pulaceous matter, resembling the cerebriiform structure. The inferior portion of the kidney and the ureter issuing from it were sound. The stomach was extremely small: its internal surface exhibited distinct polypous eminences of the size of a small nut. The parietes near the pylorus and along the lesser curvature, thickened and scirrhus. In one point they were wrinkled, as it were cicatrized; adhered to the adjacent organs, and tore with facility. Colon filled with indurated fæces. Sigmoid flexure distended by gas. A strongly marked contraction at its union with the descending colon, disappeared on pressure of the part distended by gas.

Scurvy, Aneurism of the Heart, and Communication of the two Auricles by the Foramen Ovale. By M. Bouillard.—A man, aged forty-nine, reduced by misfortune and unwholesome aliment, fell into profound melancholy, and general languor of the functions, followed by symptoms of scurvy. The appearances, observed June 21st, 1819, were: pale and dejected countenance; foul and intolerably fetid mouth; gums soft, and readily bleeding; great extravasation of blood in the right leg and foot; minute spots on divers other parts; considerable enlargement of the knee; pulse small, feeble, regular; general languor and apathy; progression, and even standing impracticable; no pain; but slight cough. July 20th, and 21st.—Considerable hæmorrhage from the mouth. Cough now constant and exhausting; lips livid; face swollen; and hence organic lesion of the lungs and heart suspected. As these latter symptoms increased, the scorbutic spots and swelling of the knee were dissipated. August 4th and 5th.—Oppression, suffocation, restlessness; face livid, and death-like. Fatal event in the afternoon of the 5th. Treatment.—Principally acids internally, and in gargle, and alcoholic applications to the legs. Dissection.—Effusion of yellowish serum into the pericardium. Right ventricle of the heart so much dilated, particularly on the left of the pulmonary artery, as to form, in some sort, a third intermediate ventricle. Parietes not sensibly extenuated. Columnæ carneæ multiplied in proportion to the morbid dilatation. Muscular structure of the heart pale and flaccid. Pulmonary artery possessing double the calibre of the aorta. Both right cavities, and venæ cavæ, gorged with black and coagulated blood; and liver, particularly to the right, as it were, inundated with it. A large rounded orifice, without rupture, between the two auricles. Lungs, particularly the left, presenting innumerable granulations, and universally adherent. Mucous membrane of the stomach marbled with white and reddish brown. The cellular structure of the knee was thickened; but no albuminous effusion into the joint or muscles. The author makes some remarks on the absence of cyanosis (blue disease) in this case*, and its occasional appearance where no direct commu-

* Supposing a communication to exist between the right and left cavities of the heart, and both sides continue to act with equal energy, no admixture of the two streams of venous and arterial blood will take place; and, consequently, cyanosis will not exist. The same result will obtain, if, when the equilibrium is destroyed, the left cavities, possessing an increase of power, propel a portion of their arterial blood through the aperture of communication into the right cavities. Should,

nication exists between the right and left cavities of the heart. Corvisart has explained the manner in which contraction of the aorta may produce aneurism of the left cavities of the heart. In this case, although the aorta was contracted, no such dilatation had taken place. This is explained by the supposition, that the contraction, being dependent on the diminished stream of blood in the vessel, was obviously incapable of determining aneurism. The dilatation of the right cardiac cavities and pulmonary artery, and gorged state of the venæ cavæ and liver, are referred to the obstacle opposed by the granular condition of the lungs, to the freedom of circulation in that organ.

Note on a Prolapsus of the Mucous Membrane of the Urethra, projecting out of the Meatus Urinarius. By Dr. Seguin.—A woman, supposed to be labouring under strangulated hernia, exhibited, on examination, a tumour between the labia, as large as a nut; its colour red, and in one point black; yielding a slight healthy suppuration, and with a depression (the orifice of the urethra, which was very much dilated,) in the centre. The tumour was wholly formed by the mucous membrane of the canal, so tumefied and relaxed, as to hang from the meatus urinarius. When reduced, it obstructed the passage of the urine. Astringents and compression employed in vain; an operation was at length submitted to. A catheter first introduced; the tumour was tied upon it with a waxed thread, which was gradually tightened. The tumour was detached on the fourth day, and the patient perfectly cured.

Case of Destruction, with Suppuration, of the Fibro-Cartilage of the Pubic Symphysis, consequent on Delivery. By M. Moreau.—This is a rare affection, on account of the low degree of energy which the fibro-cartilages enjoy. During pregnancy, however, the vital properties of those of the pelvis are evidently augmented; and hence they are, in this state, more susceptible of the influence of any irritating cause which may then act upon them. The following case illustrates these remarks:—A woman, aged twenty-six, became pregnant, for the sixth time, in March, 1819. September 1.—Profuse hæmorrhage, without known cause; was suppressed repeatedly during a week, but recurred with increased violence. Extreme debility ensuing, delivery was resolved on, and effected by turning. The child was still-born. The hæmorrhage now ceased, and every thing went

however, the reverse of this condition exist, the venous blood of the right auricle and ventricle will become mixed with the arterial of the left, and cyanosis necessarily result.

on well, except that the abdomen continued painful, particularly in the pubic region. Leeches and emollients were employed in vain. Evening rigors, with slight fever, succeeded. Forty days after delivery, (October 19th,) symptoms were the following: abdomen painful on pressure, particularly above the pubes; left labium tumefied, painful; pulse small, frequent; evening fever; cheeks flushed; tongue white, its borders red; copious offensive diarrhœa; appetite gone; general debility. The pubis shaved, and emollient poultices applied; anodynes internally. October 29th.—Vomiting; diarrhœa somewhat diminished. Extreme weakness; smart evening fever. November 1st.—Obscure fluctuation, four fingers' breadth above the pubis, apparently beneath the right rectus. 6th.—More evident. Tumour then existing, perfectly ovoid and circumscribed, and apparently formed by collection of fluid in the substance of the abdominal paries. Fluctuation also in the left labium. 8th.—Collection increased. Death next day. Dissection.—The tumour found to consist of an abscess between the lower part of the right rectus and peritonæum, naturally investing it. Sixteen ounces of offensive pus, resembling that of phlegmon of the cellular membrane. Fibro-cartilage, constituting the pubic symphysis, entirely destroyed, except a few traces at the inferior part. Osseous surfaces denuded, smeared with pus, their colour blackish-grey, but structure unaltered; some fasciculi of the anterior and triangular pubic ligaments still existing. A purulent cyst in the substance of the left labium, communicating, in front of the pubis, with the former. In the abdomen, much offensive gas, and two pints of serum with albuminous flocculi floating in it. Intestines connected by adhesions readily separable. Hepatic peritonæum also adherent. Liver itself large, but, with all the other internal organs, sound.

Exposition of the Nervous System. By Carus. (Continued.)

Bulletins of the Faculty of Medicine of Paris. 1819.

No. IX.

Excision of the Articular Extremities of both Bones of the left Leg, and of the Inferior Extremity of the right Tibia, detached from its Epiphysis, performed at Amiens. By Dr. Josse.—Extract of the Reports of M M. Dubois, Chaussier, Dumeril, and Breschet.—A girl, of sixteen, had the lower extremities dreadfully injured by a fall of earth. Four hours after the accident the feet were found inverted on the legs; the left tibia and fibula and right tibia projecting, from large wounds, beyond the soles of the feet, and the latter drawn upward by contraction of the muscles. The left foot, turned inward, was

completely separated from the crural bones, and the articular capsule and ligaments ruptured. The superior surface of the astragalus was seen in a transverse wound, extending from the external border of the tendo Achillis to the anterior border of the internal malleolus. The inferior extremity of the right tibia detached from its epiphysis, which retained its connexion with the astragalus, protruded through a smaller transverse wound above the inner malleolus. The fibula was fractured one-fourth from its lower extremity. The bones were, in several places, denuded. Reduction appearing impracticable, excision was preferred to removal of the limbs: and two inches of the right tibia, and one inch and a half of the left tibia and fibula having been sawn off, the feet were readily restored to their natural position, and retained by compress and bandage. Some collections of blood and pus formed during the treatment, and were opened; and in three months the girl was enabled to walk with a stick, which soon was thrown aside. Slight lameness remained. The right ankle-joint exhibited no alteration in its form or motions; but the left had completely lost its figure, and appeared to be ankylosed. The Reporter's remarks on this operation are principally historical; in no way practically important.

Memoir on the Membranes of the Human Fetus. By Drs. Dutrochet and Breschet. — Notice postponed.

The Sitzings of the Faculty and Society during November offer nothing useful.

DECEMBER. — *Original.* — *On the Influence of Efforts upon the Organs contained in the Thoracic Cavity.* By M. Jules Cloquet. — This paper occupies sixty-five pages, and, consequently, cannot here be analyzed to the extent which the novelty and importance of the subject demand. We shall revert to it on a future occasion.

Remarkable Effects of a small Dose of Extract of Stramonium in intense Headach. By M. Orfila. — The subject of this affection was a lady, aged thirty. The pain so intense as to destroy sleep, and disqualify her for all occupation; observed periods of three or four hours, with intermissions of from twenty to forty minutes. The digestion was somewhat deranged; the other functions natural. Local and general blood-letting, antimonials, and cinchona, had been tried in vain. One grain of extract of stramonium was given every morning for four successive days. No relief following, the dose was doubled on the fifth, and in four hours after, all the symptoms of poisoning by stramonium were developed. The face was of a purple-red colour, and swollen; eyes projecting, pupil dilated; eye-lids half closed, and vision nearly lost; hearing impaired; muscles of the lower jaw, lips, right

arm, and leg, convulsed; left side completely paralyzed, and intellect singularly disturbed; continual incoherent stammering, weeping, and other expressions of dreadful suffering; deglutition difficult; abdomen sore; pulse small and frequent; respiration tight and hurried; temperature natural; cold sweats only in the paralysed foot. Ten leeches were applied behind the ears; sinapisms to the feet; injections of common salt and vinegar administered; and vinegar and water given internally. An emetic was not prescribed; the symptoms, indicative of absorption, proving that the poison was no longer in the intestinal canal. The phenomena now gradually subsided, and the paralysed limb began to execute slight movements. About midnight another, but less violent attack, relieved by antispasmodics. Weakness and indistinct articulation only remained; and the headach never recurred. In nine days the patient was perfectly restored. The violent operation of the stramonium is, in this instance, referred by Orfila to some peculiarity of constitution in the patient; since it may commonly be administered without inconvenience, in a dose double that which produced the violent effects described here. The case occurred in Minorca; and most of the poisonous plants, Orfila observes, possess greater energy in this and similar situations than in more northern latitudes. And, again, the inhabitants of the south are endued with a peculiar susceptibility, which renders them more sensible to the action of powerful medicines. However it be, the fact of a general and very intense headach having been speedily removed by the stramonium, is worthy of record.

On the Effects of Darnel; addressed to M. Orfila, by Dr. Cordier. — In this paper, the author describes the effects produced upon himself by the ingestion of bread made of the farina of the seed of *lolium temulentum* (darnel). It was taken in the quantity of six drams, without other food, early in the morning; and had a peculiar slightly disagreeable taste. Distraction of thought; indistinct vision; torpor, accompanied with general uneasiness and debility and drowsiness, succeeded by efforts to vomit, speedily came on. Tremor of the limbs; part of the bread rejected by vomiting: great depression: speech difficult. Slept for a few minutes; vomited the remnant of the bread with much colourless mucus; slept again at intervals, taking only a little soup, without appetite, till evening, when weakness and inappetence only remained. Next day, convalescent; but yet a sense of uneasiness in the epigastrium, accompanied by eructations of a peculiar taste, continuing on the following days, and still perceptible in bread containing some portion of

darnel. The state of circulation and respiration, during this experiment, the general disorder prevented Dr. Cordier from ascertaining. He concludes from it, that darnel should be ranked among the stupifying narcotic poisons; and that its action is especially exerted on the cerebral and nervous systems. The position of many Naturalists, respecting the similarity of properties possessed by plants of the same natural family, is thus, moreover, controverted.

Notice on the Yellow Fever. By M. Orfila. — The Asia, of seventy-four guns, in its passage from the Havannah to Cadiz, in 1819, lost one hundred and fifty men by the yellow fever; and, having communicated the infection to the inhabitants of the latter place, was ordered off the lazaretto of Mahon, in Minorca, where M. Orfila, at that time, resided. No energetic measures had been employed to disinfect the vessel. The temperature was then about eighty-six degrees. On the day before the expiration of the quarantine, September 13th, a sailor, aged thirty-four, exhibited all the precursory symptoms of yellow fever. These increasing, he was conveyed to the lazaretto; and the junta despatched Orfila with the other Physicians of Mahon to decide on the character of the disease. The man was found lying on the right side; the conjunctiva, face, neck, thorax, abdomen, and lower limbs, of a deep yellow colour; eyes glistening and prominent; look fixed; tongue covered with a fur resembling wine-lees; extreme prostration, and apparent unconsciousness. The disease had commenced by rigors alternating with flushes of heat: soon afterwards contusive pains in the loins and limbs; headach, vertigo, nausea, and general depression. At the close of the second day the conjunctiva and face had begun to assume a yellow colour, with abundant coffee-ground mucous vomiting. Next day, the fæces had become of a blackish-green colour; urine red; and the skin almost universally yellow; pulse full and frequent. Two others of the crew of the Asia were afterwards conveyed to the lazareth, with the same symptoms. The fate of these men is not mentioned. The paper concludes with the code of regulations, adopted to arrest the progress of the infection. They were enforced with great success. The Asia terminated her quarantine on the 27th of October, with her crew in perfect health.

Bulletins of the Faculty, &c. 1819. — No. X.

Case of Delirium Tremens cured by Opium. By Dr. Rayer. — This case, occurring in an habitual spirit-drinker, aged fifty-one, exhibits nothing remarkable. Colic, with copious diarrhœa, formed one of the most prominent symptoms. An

attack resembling apoplexy, for which he was repeatedly bled, took place some days previously to the exhibition of the opium. This was given in a liquid form, with an almost immediate good effect.

Portion of the right Ear entirely separated, methodically re-applied, and completely re-united. By Dr. Magnin.—The superior part of the right ear was, in this instance, completely detached by a sabre cut, but immediately replaced and retained by sticking plaster and bandage.—4th day, the portion which had been separated was found pale, cold, and painless; dressings not removed till 10th, when it was found completely re-united without suppuration; and of the natural colour and sensibility. We recommend this case to the notice of Dr. Balfour.

Considerable depression of the left Parietal Bone, unattended by formidable symptoms. By M. Jannin.—A piece of wood falling on his head stunned the man without knocking him down. The depression of the bone was two lines in depth, and rather extensive: but bleeding and abstinence served to obviate every unfavourable consequence.

The Sitzings of the Faculty and of the Society during December contain nothing worthy of extract, except the presentation of an individual by M. Dubois, who had accidentally swallowed a blade of steel. This, after a year's sojourn in the body, was extracted from an abscess in the right groin, to which it had given rise.

MEDICAL MAGAZINE.

OCTOBER 1819.—*Bulletin of the Atheneum of Medicine.*

Two Sitzings of the Society during July.—10th, Villeneuve reports a case of periodical retention of urine, attributed to a varicose state of the neck of the bladder. Lallemand mentions an instance of retention, probably dependent on inflammatory tumefaction of the neck of the bladder. It yielded to local bleeding, warm bath, and antiphlogistics, when catheterism had only aggravated it.—24th, De Lens notices the frequent substitution of the vaccinium vitis idæa, (red whortle-berry,) for the uva ursi, and attributes to this fraud the frequent failure of the latter medicine.

Employment of Phosphorus in a case of Malignant Putrid Fever. By Dr. Despaux.—A boy of thirteen, after having been much beaten and abused, was seized at night with high fever and delirium. The usual means were employed in vain, and on the 16th day the following symptoms were observed: loss of voice and consciousness; tremor of the tongue, and inability to put it out; deglutition, as it were, paralyzed; eyes dim, sunk, and commonly closed; pulse feeble, irregular,

intermittent, tremulous, and every where varying; stools abundant, black, bloody, involuntary; extremities cold; skin almost insensible; and gangrene of the parts on which the body rested. In this hopeless state, it was resolved to administer, every hour, half a spoonful of a mixture composed of an æthereal solution of two grains of phosphorus in six ounces of almond emulsion. The four first doses were introduced with considerable difficulty; the others passed more readily; and very soon the plaintive and incessant cries of the patient, the vivacity of the eyes, which had scarcely been opened for the last week, general heat and perspiration, continual agitation and increased fever, announced the influence of the medicine on the intestinal canal. It was, therefore, discontinued, and mucilages, acids, and antispasmodics given, both in potion and glyster. In twenty-four hours tranquillity re-established, with evident amendment in all the symptoms. Convalescence proceeded rapidly. Several abscesses formed in different parts of the body. The suppuration from the gangrenous eschars was very profuse. The boy ultimately recovered. Dr. Despaulx thinks that phosphorus may be advantageously employed in extreme prostration of the vital forces unaccompanied by inflammation. It should obviously be used with great circumspection. A "Report" of Dr. Bally on this case is principally occupied by the precautions which should be observed in the preparation and employment of phosphoric medicines.

Medical Varieties.—Uninteresting.

NOVEMBER.—*Bulletin of the Atheneum, &c.*

Report on a Pamphlet of Dr. Boërio, entitled, Istoria della Pellaagra, (History of Pellaagra). By M. Pavet.—This is an analysis of an Italian work, and consequently does not come within our plan. We shall revert to it in our general retrospect.

Medical Varieties—Controversial. Subject, a new Theory of Menstruation. By M. Sorun.

DECEMBER.—*Bulletin of the Atheneum, &c.*

Two Sitzings of the Society during August.—14th, Ville-neuve speaks of a coachman of athletic constitution, who complained of uneasiness, loss of sleep, and headach, incurable by local bleeding and pediluvia. Pain, supposed to be rheumatic, at the anterior superior part of the head. Blister to the nucha; sinapisms between the shoulders; and friction of the pericranium with volatile liniment. Pain now intermittent, but intervals gradually shorter. Momentary

relief from leeching the scalp. Water poured on the cranium. Third application followed by stupor and delirium. Moxa on the head, emetic tartar, and a seton in the neck, useless: Man died apoplectic.—Dissection. Several holes in the internal table of the skull, implicating three-fourths of its thickness. A cyst, filled with bloody mucus, occupying internal surface of dura mater. Brain depressed at the posterior part of the left lobe. A little serum in the ventricles.

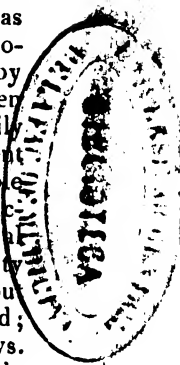
Case of peculiar Alteration of the Liver. By Dr. Martinet.

—Subject, a boy, aged fifteen. Illness, of three weeks' duration. Symptoms: abdominal pain, succeeded by diarrhoea and jaundice. April 27th, 1817, conveyed to *l'Hôtel Dieu*. Delirium at night. Sinapisms to the feet.—28th, Reclination on the back; general depression; drowsiness; diminished sensibility; eyes closed, except on excitation; pupils somewhat dilated and motionless; elevation of the arms difficult, the left falling, as it were, in a mass. Right eyelid semi-paralyzed; head slightly painful; speech slow and difficult; answers rarely correct; pulse fifty-one; tongue moist and yellowish; breath offensive; yellow tinge of the eyes and skin; lips sooty; temperature natural; abdominal pain, not sensibly increased by pressure; legs œdematous, with some ecchymoses; thorax sonorous; no cough; countenance little altered.—Treatment: cinchona; camphor; lemonade with wine; sinapisms to the knees.—Evening, urine yellow, discharged involuntarily; loquacity ceased. From this period till death, in the night of May 1st, no decided change, except that the pulse got up to one hundred and sixteen: coma closed the scene. Treatment, latterly, repeated application of leeches to the head; acetic cataplasm to the hepatic region, and afterwards leeches; sulphate of magnesia; injections; cold bath; tepid affusions; cinchona; æther; musk; sinapisms.—Dissection, thirty-six hours after death. Exterior, universal jaundice; abdominal integuments greenish. Brain and membranes sound; no serous effusion. Thorax: mucous membrane of the trachea of a slightly livid red colour, as far as the bronchial ramifications. Heart healthy. Abdomen: liver one-third less than common, softened so as to admit the finger with facility, and reduced to a kind of pulp; its structure aptly comparable to that of the spleen, and its colour to that of rhubarb, which it moreover perfectly resembled by the admixture of reddish striæ observed in its parenchyma. Some red points in the gastric mucous membrane, especially about the pylorus. Omentum also red to a considerable extent; the mesentery,

in some of its parts only. Several of its glands were enlarged. The "Reflections" of the author add nothing to the interest of this obscure and remarkable case.

Report of Dr. Parent on a Case of Ascites complicated with Umbilical Hernia, addressed to the Athenæum. By Dr. Chaudon. — The subject of this case is a woman, aged thirty, married ten years, without children, and subject, from the age of twenty, to irregularities in the menstrual flux. In January 1813, menstruation was suppressed by exposure to wet. General uneasiness, swelling of the legs, gradually extending to the abdomen; continual thirst and scantiness of urine succeeded. The abdomen soon became enormous; was not reduced by hydragogues or diuretics. Medicine was now utterly abandoned, and the patient continued her domestic occupations for three years, inconvenienced only by the excessive size of the abdomen. For more than fifteen years she had been affected by umbilical hernia, readily reducible, and kept in place by a bandage. During a violent exertion, the hernia one day suddenly acquired a considerable volume, and became irreducible. An operation for its reduction was necessary, and through the opening of the hernial sac great part of the water contained in the abdominal cavity escaped. It might have been completely evacuated, but prudence forbade. The fecal evacuations were re-established; an excessive flow of urine took place during several days. In one month after the operation the wound was cicatrized; œdema of the legs no longer existed; the abdomen had resumed its natural state. And, one year afterwards, the patient was in full possession of her strength and health.

Dr. Chaudon next proceeds to explain how the irritation induced by the opening of hernial sac, changed the mode of sensibility of the exhaling and absorbent vessels, and restored them to their natural action. He then speculates, although in an undecided tone, upon the possibility of curing abdominal dropsies by the employment of a longer canula than is at present used. With this he proposes, after evacuation of part of the fluid, to irritate the surface of the peritoneum, with a view of causing adhesion, as in the operation for hydrocele. But to such an attempt Dr. Parent strongly objects: first, because of the impossibility of limiting the degree of irritation; and, secondly, the difficulty of distinguishing essential dropsy, in which alone success could by these means be expected, from the much more common variety resulting from some organic lesion. "I might," he adds, "cite various cases wherein paracentesis has induced acute and fatal peritonitis. I shall never forget a lady whom I once attended, and who, anxious to rid herself at all



events from an encysted ovarian dropsy which frequently required puncture, died in consequence of a simple injection of honeyed barley-water thrown into the cyst to induce adhesion of its parietes. The peritonitis which ensued, was the most violent I have ever seen; and yet the mild injected fluid came not into contact with the peritoneum, since adhesion existed between the cyst and abdominal parietes. What would have been the consequence, had this fluid been in immediate contact with the susceptible membrane which covers the intestines? Hence we may judge of the inevitable effects of a mechanical agent blindly thrust in upon parts, the state and situation of which are unknown to us.

Medical Varieties.—*Note on Electricity.* Lapostolle, Professor of chemistry and natural philosophy at Amiens, has recently proved by experiment, that *straw* is by far the best conductor of the electric fluid. He, consequently, proposes to erect all over France, poles of lime or other white wood twenty feet long, to serve as support to a band of straw surmounted by a metallic point. These would supply the place of common conductors; one only would suffice for a square of sixty acres, and at an expense exceedingly small.

We shall conclude in our next Number, the Analysis of the Foreign Journals for 1819.

PART V.

MEDICAL AND PHYSICAL INTELLIGENCE.

SOME ACCOUNT OF THE UNIVERSITY OF BONNE UPON THE RHINE, IN PRUSSIA.

A YEAR has not yet elapsed since the King of Prussia founded the University of Bonne, in the province of the Rhine, and endowed it with a liberality worthy a Sovereign who rivals his ancestors in his encouragement of the sciences, and in his care of public education.

The city of Bonne, delightfully situated upon the banks of the Rhine, between Cologne and Coblenz, seems fitted to become the seat of the Muses; its environs are among the most beautiful of the countries of the Rhine, so much admired, and so often sung by various poets: towards the east the Rhine, "that exulting and abounding river," is seen issuing with his majestic waves from between rocks and mountains; the crown of seven mountains extends to his right borders, and appears as if destined to give dignity to this son of the Alps: on the other side of the Rhine are seen the mountains called Eifel, Godesberg, and, quite near the city, the little mountain of St. Croix; a spacious plain extends towards the west, whose horizon is terminated by the spires and dome of Cologne.

The vast chateau of Bonne, *ci-devant* residence of the Elector of Cologne,

which extends half a mile in length, is appropriated to the University, and the beautiful chateau of Poppledorf, with its plantations, for the botanical gardens. A large astronomical observatory will be immediately erected. Many libraries have been acquired, by purchases and donations. The Anatomical Theatre, the Medical and Surgical Hospitals, and the Institution for Midwifery, the Cabinet of Physic, the Laboratory for Chymistry, the Museum of Natural History, of Antiquities, of Roman and German Coins, Medals, and Monuments, found in the environs of Bonne, the *Bonna castra* of the Romans, are already, or will be soon completed.

There are, at present, forty-five Professors placed in the University by the King of Prussia; and there is, at least, an opening for ten more, which will be occupied in the course of time. The body of the University is composed of five Faculties.

The Faculty of Theology, at present, possesses, for the evangelical or Lutheran confession, the Professors Augusti, Lücke, Sack, Gieseler; for the Catholic confession, the Professors Seber and Gratz: several more Professors, for this Faculty, are expected to arrive in a short time. The Faculty of Jurisprudence is composed by the Professors Mittermaier, Welcker, jun. and Makeldej; to which are joined the Doctors-in-law, Burchardi, Walter, and Bermuth. The Professors of the Faculty of Medicine are Harles, de Walter, Mayer, Stein, Windischmann, Naste, Bischoff, and Dr. Weber.

For the different branches of Natural History, there are Kastner, Nies, d'Esenbeck, and his brother Goldfus, Næggerath, Bischof, and Dalton: for Mathematics, Diesterweg; and for Astronomy, Munchon: for Metaphysics and Philosophy in general, besides the above-mentioned Windischmann, Delbruck, Welcker, sen. van Calker, and Steingass.

In History, Hüllman and Arndt; for Poetry, de Schlegel; for the Ancient and Oriental Languages, Heinrich, Naেকে, Welcker, sen. Freitag; for the Modern Languages, Radloff, Freudenfeld, and Strahl; for Painting, Raabe, &c. &c.

There are at Bonne, during the last summer of 1819, more than two hundred students; and it is to be hoped that the number will be augmented to four hundred, during the approaching winter. Indigent students find at this University considerable benefices; and the liberality of the Government is so great, as to extend them equally to foreign students, who, possessed of talent, though not of the gifts of fortune, are induced to wander to this seat of learning.

TO THE EDITORS OF THE LONDON MEDICAL REPOSITORY.

GENTLEMEN,—I am much gratified by the notice which you have been pleased to take of the account which I have given of the opinions of ancient and modern Physiologists, respecting the nature and uses of the nervous system; and I hope that the practical part of my work will meet with your approbation.

To those who object to the book that it is a compilation, it may be replied, that they object to it because it is what it professes to be. It is not, however, a mere compilation, as I have introduced into it occasionally my own opinions and practice.

I am now considering Palsy and Epilepsy, and should be very glad, through the medium of your valuable Journal, to be allowed to solicit the assistance of my professional brethren on these subjects.

I am, Gentlemen,
Your obedient servant,
J. COOKE.

Gower Street, Feb. 3.

UNDER THE AUSPICES
OF
HIS EXCELLENCY THE COUNT PALMELLA,
AMBASSADOR OF HIS MOST FAITHFUL MAJESTY AT THE BRITISH COURT,

The following Plan for Restoring Persons from a state of suspended Animation, is humbly offered to the Public,

By their most obedient Servant,

B. DE SANCTIS, M. D.

DIRECTIONS, &c. &c. &c.

In every case of suspended animation, endeavour, as soon as possible, to restore the functions of the lungs and heart. To accomplish this, extend the body of the patient either on the moveable back of the reanimation-chair, (see the plates), and fix it there with bandages; or on a convenient table, should the chair not be at hand. The position in which the body is to be placed, is an important consideration. The head and shoulders should be somewhat raised. Having placed the body in the best and most convenient posture, introduce the flexible metallic tube into the stomach, and fix it properly by means of the elastic regulator. Pass also the silver tube into the larynx, and close the mouth perfectly with the coated plate and its appendages. Close also the nostrils with the forceps, and the ears with cotton. Adjust the box-bellows to the tube placed in the larynx, and alternately force the air into, and withdraw it from, the lungs: the latter operation may be effected by pressure on the chest and upper part of the abdomen.

Whilst employed in these operations, an assistant should be preparing the Pensile Galvanic Pile, as hereafter directed; and having attached it to the top of the chair, one of the wires must be applied to the tube passed down the gullet, whilst the other is to be successively made to touch different parts of the external surface of the body, particularly about the regions of the heart, of the diaphragm and of the stomach, during the inflation of the lungs; then of the neck, describing the course of the parvagus or eighth pair of nerves, along the course of the spine, &c.

Let the globe, filled with æther, or any other stimulating fluid that may be thought proper, be fixed to the tube in the gullet, and warmed by means of the spirit-lamp, which may be lighted by the *ignitor* in the chest, which also contains lancets, ribands, &c. in case of being required.

As soon as natural respiration is observed to take place, remove the coated plate, regulator, tubes, &c. but continue to apply galvanism and warmth, aided by gentle frictions of the whole of the body, until the pulse, at the wrist, shall become perceptible, and of sufficient strength to maintain its action.

Management of the Pensile Galvanic Pile.

The plates, composing the pile, being properly arranged, mix nitric acid and water in the glass tube, in the proportion of from one to two or even three-fifths of acid, according to the state of the atmosphere. The nitric acid is preferable to the muriatic, as it produces a more powerful effect. Having introduced the needle through the small glass tube, press the plates closely together, and then immerse the pile in the bath; move it up and down in the solution, from ten to thirty seconds, according to the strength of the fluid; remove it, dry it carefully with a linen cloth, press the plates closely together, and give it to an assistant to hold. Dip a finger of each hand into the solution, and then ascertain the force of the pile. Should it be found of sufficient strength, fix the conducting wires at whatever height you think proper, and add pieces of moistened linen to their ends; dip some

cotton into the same liquid, and apply it those parts of the patient which are to complete the circle; then galvanize either by current or by shocks, at such distances of time as the case may appear to demand.

Should it be necessary to continue this process for any longer time than the strength of the pile remains, (say half an hour), the pile must be again immersed in the acid solution, taking the precaution of previously plunging it into pure water, and then wiping it dry.

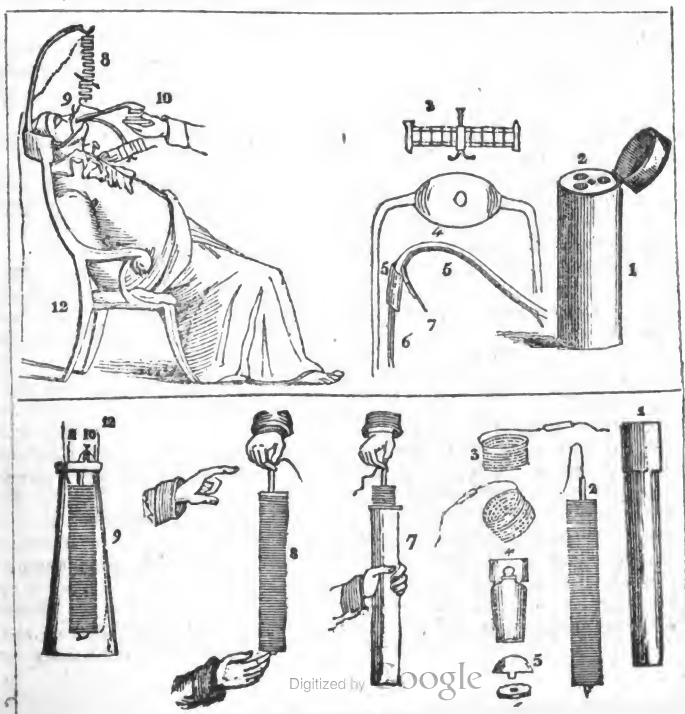
The use of the pile being finished, cut the knot of the string which connects the plates, unstring them and the cloths, and wash them well in clean water: dry the latter on blotting paper before the fire, the former by means of a linen cloth; after which polish them with the rubber on fine emery paper; then wax the silken-twist, knot it, and string the plates as before; taking care that the zinc is the uppermost. Should there be more than one pile employed, the same attention must be paid to them in their connexion and arrangement with the chief pile.

In other cases than those of suspended animation, the pile may (having first disposed different coated wires at various heights of the column) be enclosed in a glass vessel to avoid any inconvenience from the acid fumes.

The silken-twist and the cloths require to be frequently changed, particularly after having been immersed in a powerful acid solution. Care must be taken that the holes of the plates are *completely* filled up by the silken-twist.

The Portable Pensile Galvanic Pile is made and sold by Mr. Charles Massi, No. 2, Vittoria Place, Duke's Row, Tavistock Square. Price one guinea with the tin tube only: 25s. with the tin and glass tubes; the latter ones are safer if nitric acid is to be employed. When the tin tubes are employed, the cover of the bottle will serve for a measure; it is graduated into a fifth. The glass tube is also graduated for the same purpose.

Dr. De Sanctis will be happy to give to any professional purchaser of the instrument more particular information as to the mode of using it, any Thursday, between the hours of two and four o'clock, at Mr. Massi's.



References to the Plates.

PLATE I.

- Fig. 1. Chest of apparatus for restoring cases of suspended animation.
2. Three large cavities, one for the reception of a Galvanic Pile, composed of one hundred plates, with its glass tube, &c. Another for enclosing two half piles, to be employed as appendages in cases of sudden recovery, or to form one pile for supplying the place of the exhausted one, as it is necessary to change them every half hour in cases of slow recovery; which is never to be despaired of until after four hours' ineffectual application. The remaining cavity is for the bottles of nitric acid, æther and brandy. The small hole in the case is for receiving the flexible metallic tube for the stomach. The remaining spaces will contain the other instruments. The box-bellows is to be placed inside the cover. The length of the chest does not exceed fifteen, and the diameter scarcely four inches.
 3. Box-bellows fully extended.
 4. Coated plate, with part of the elastic appendages for closing the mouth. It has a hole for the reception of the tubes for the larynx and stomach.
 5. Regulator for fixing the tube in the stomach, closing the gullet, and for directing and fixing the tube for the larynx.
 6. Part of the tube going to the stomach.
 7. Termination of the tube for the larynx.
 8. The chief pile fixed to the hook attached to the reanimation-chair. Should the patient be laid on a table, the pile must be supported by an assistant.
 9. The forceps closing the nostrils.
 10. The spirit-lamp heating the globe of æther adjusted, with the neck to the end of the gullet-tube.
 11. Box-bellows attached to the end of the larynx-tube.
 12. Reanimation-chair. The back and front are moveable, so as to adapt it to patients of different ages. After the operation, it may be converted into a convenient bed.

PLATE II.

- Fig. 1. Portable Galvanic Pile enclosed in its tube, for any medical case in which the application of galvanism may be deemed advisable.
2. A pile of one hundred plates, each plate one-eighth inch diameter, and one-sixteenth in thickness, with cloths of six-eighths diameter. The needle has been introduced into the little glass tube.
 3. Wires, with the moveable glass tube near the end.
 4. Stopper bottle for the acid. The cover serves for a measure. The bottle is surrounded by blotting paper, the pile by emery paper, and cotton is placed in the upper part of the cover of the tin tube.
 5. The rubber.
 6. A piece of yellow wax.
 7. The pile plunged into the bath, in which it is to be moved up and down.
 8. Mode of trying the strength of the pile.
 9. The pile enclosed in a glass vessel.
 10. The needle, with the remaining silken-twist passed through a piece of cork, and attached to a glass supporter.
 11. The lowest of the coated wires attached to the positive pole.
 12. The highest ditto attached to the negative pole.
- The height of the wires attached to different parts of the pile denotes their strength.

* * * A new design is in the hands of the Engraver, which will more clearly represent the Reanimation-chair, with some improvements of the other Instruments.

[The following is an Arrangement of Diseases proposed by Dr. NUTTALL, as a Guide to his Course of Lectures on the Theory and Practice of Medicine.]

Class I. Diseases of the whole system.

IDIOPATHIC.

Order 1. Fevers without specific eruption.

2. Fevers with specific eruption.

Class II. Diseases of one or more of the three fundamental systems generally complicated.

Order 1. Of the sanguiferous.

With Fever.

SYMPTOMATIC.

1. Fever symptomatic of local inflammation.

2. Fever symptomatic of suppuration.

Without Fever.

2. Of the absorbent.

3. Of the nervous.

Class III. Diseases of the lesser or subordinate systems frequently complicated.

Order 1. Of the digestive.

2. Of the respiratory.

3. Of the perspiratory.

4. Of the urinary.

5. Of the muscular and tendinous.

6. Of the articular and bony.

7. Of the sexual.

Class IV. Diseases of individual organs.

Order 1. Of the sanguiferous.

2. Of the absorbent.

3. Of the nervous.

4. Of the digestive.

5. Of the respiratory.

6. Of the perspiratory.

7. Of the urinary.

8. Of the muscles and tendons.

9. Of the joints and bones.

10. Of the sexual.

11. Of voice.

12. Of sight.

13. Of hearing.

14. Of smell.

15. Of taste.

16. Of touch.

All parts of the body are subject to inflammation and change of structure.
All the interstices and cavities are subject to dropsy.

TO THE EDITORS OF THE LONDON MEDICAL REPOSITORY.

GENTLEMEN,—I find in a work lately published by Dr. Paris, entitled "Pharmacologia," the following notice of the *Sedative Preparation of Opium*, which I have introduced to the Medical Profession, under the name of *Liquor Opii Sedativus*.

Note—Page 314.

"*Liquor Opii Sedativus*. Under this name, Mr. Battley, of Fore Street, London, has introduced a narcotic preparation, which it is generally supposed owes its efficacy to the *acetate of morphia*: on being kept, however, I found that it underwent some important change, during which

so much air was disengaged as to blow out the cork from the bottle with violence. This is a great objection to its admission into practice."

And again in the "Index to the Patent Medicines and Nostrums" described in this work, under the motto "*Arcana revelata fœtent.*"—BOERH.

Battley's Liquor Opii p. 314

Liquor Opii Sedativus 314

Dr. Paris states further, as follows, page 217 :—

"Spiritous or Resinous Extracts. These may contain, with the exception of gum, all the ingredients contained in watery extracts, besides resin: their composition however will greatly depend upon the strength of the spirit employed as the solvent; but of this I shall speak more fully under the article *tincture*. Mr. Battley, a wholesale druggist in Fore Street, London, is in the practice of preparing resinous extracts, without the intervention of any solvent except water: his method consists in submitting the plant, after it has been well bruised and pressed, to the operation of long continued decoction, by which the soluble parts are extracted, and the insoluble matter is separated and procured on the surface of the liquid, in the state of a finely divided powder: this is removed, and, when the soluble parts have by evaporation acquired the consistence of a syrup, the insoluble part is then intimately mixed and incorporated with it. We have certainly in this preparation all the elements of the plant, which water and spirit could have extracted, but have we them in the same state, and are they calculated to produce the same *medicinal* effects? I feel some hesitation in answering this question: it surely cannot be *one* and the *same* thing, whether an active resinous element be *mechanically mixed* with an extractive mass, or whether all the ingredients be at once obtained by the evaporation of a spiritous menstruum, in which they were previously *chemically combined*."

"The extracts obtained by Mr. Battley's process must be less pure, as well as less soluble in the *primæ viæ*; and I apprehend that they will, if purgative, be more liable, on such an account, to operate with griping and uneasiness."

Having occupied some part of your Journal of last month, in endeavouring to remove a misrepresentation which had obtained, respecting a preparation of senna; I am really pained and distressed, by the necessity which is imposed upon me, of again and so quickly soliciting your indulgence.

Dr. Paris states, that "it is generally supposed, that the '*liquor opii sedativus*' owes its efficacy to the *acetate of morphia*," and that, "on being kept, he found that it underwent some important change:" he has thought proper to place this preparation under the most objectionable arrangement, and to class it under a quotation which is too offensive, with reference to my humble labours, for me to quote a second time.

And also, upon a statement which Dr. Paris calls my method of obtaining extracts, proceeds to express his disapprobation of such process.

In the month of June last, I exhibited to Dr. Paris, at my own house, not only the solution of opium, but all the constituents of opium, so far as I had been able to divide them;—namely, the sedative extract, the resinous extract, and three other constituents, which I had not then particularly attended to. I then explained to Dr. Paris, that the solution was the *sedative extract* diffused in distilled water, and that the liability of the extract, in that state of solution, to undergo changes, was a defect in the preparation, but that the addition of a little spirit would prevent decomposition.

On the same occasion I showed Dr. Paris the apparatus, and explained the mode of operation by which I obtained extracts, of which I exhibited many specimens, as well narcotic, as resinous and gummy resinous. And I also then announced my wish and desire to exhibit to the Royal College of Physicians, the process by which I obtain extracts.

The liquor opii sedativus is the sedative property of opium, separated or divided from every other property of opium, so far as I have succeeded in effecting such division, or separation, diffused, in distilled water: I can neither add to, nor subtract from this definition.

The addition of less than one sixteenth part of spirit, would prevent change for several months; an eighth part of spirit would, I conceive, preserve it unchanged for years.

It has been ascertained, by extensive experience, in one of the largest fields of observation and proof, that it is very superior to the vin. opii, and other preparations of opium, in affections of the eye requiring the use of opium; and in the last stage of cancerous tumours, after the skin gives way, and the fungous appearance takes place, the power of this medicine in allaying pain, and mitigating suffering, would alone render it an object of professional and public interest. The addition of spirit, in quantity sufficient to preserve it from undergoing changes, would be highly improper, for either of these purposes; and the distribution of the solution in water, instead of the component itself in a solid state, has been deemed prudent, until the powers and uses of the medicine should have been professionally ascertained.

I do not obtain extracts in the manner described by Dr. Paris. The object which I propose to myself, in extracts, is to condense, *without alteration*, all the medicinal properties of narcotics, barks, roots, and other productions; which object I doubt not I have fully attained, in the specimens which are placed for professional inspection and examination, in the Museum of Materia Medica, at St. Thomas's Hospital. Diffuse the extract in water, and all the properties will be a second time placed in solution, as before the evaporated process commenced.

That a medical preparation, which is daily acquiring the confidence of the Profession, should have been consigned to the ranks of empiricism, under the circumstances which I have now stated; and that a whole class of preparations should have been subjected to censure, upon an imaginary representation, will not fail to excite surprise.

It is my desire to pass on, uninterruptedly, in the course of inquiry which I have prescribed to myself in pharmaceutical chemistry: I have had occasion to apprise Dr. Paris that such is my desire, and I consider myself pledged to pursue that object. I do not wish to, enter upon broad or public explanation in the way of animadversion, but I do not feel that any consideration of duty, or a tenderness of feeling, ought to be held paramount to the obligation to uphold and support the character of medical preparations, which I may be the means of introducing for the use and service of the public; and I hope it will be unnecessary for me to proceed to further explanation on this or any other subject, unless it be in a candid and honourable spirit of discussion.

I remain, Sir,
Your faithful and obedient Servant,
RICHARD BATTLEY*.

Fore Street, Cripplegate,
Feb. 24, 1820.

* We willingly give insertion to the above letter of Mr. Battley, under the feeling that every individual has a right to speak for himself; and that it is by temperate discussion truth is most likely to be elicited. With respect to the action of the *Liq. Opii Sedative*, the editor can give a personal and particular testimony in its favour, since he has had recourse to it recently for a painful affection of the face, and its operation proved remarkably pleasant as well as effective. Dr. Paris's very excellent work, to which Mr. B. alludes, will be reviewed in the April, or at furthest the May Number of the Repository.—Ed.

A METEOROLOGICAL TABLE,

From 21st of JANUARY to 20th of FEBRUARY, 1820,

KEPT AT RICHMOND, YORKSHIRE.

D.	Barometer.		Therm.		Rain Gauge.	Winds.	Weather.	
	Max.	Min.	Max	Min.				
21	29	60	29	49	30	18	NE.N.	1 Sun.. 4 Moon....
22	29	65	29	48	30	22	W.SW...	1 Sun...
23	29	38	29	22	38	30	06 SW...SE..	1 Snow. 2 Sun. 3 Cl.. 4 M..
24	29	35	29	22	38	36	05 SE.SW..	1 Cl.. & Sho. of rain. 4 M...
25	29	14	29	07	38	36	17 SE..	1 Cloud.. 2 Mist... & Rain..
26	29	14	28	97	44	36	14 Calm, SW..	1 Cloud... 4 Rain..
27	29	30	28	98	45	38	05 SW..	1 Sho. of rain. & Sun..
28	29	73	29	70	42	34	NW..	1 Cloud.. 2 Sun..
29	29	62	29	54	40	35	20 W.SW.	1 Sun.... 2 Cloud.. 4 Rain...
30	29	56	29	46	43	38	SW.SE.	1 Sun... 4 Mist..
31	29	52	29	50	45	39	SW...	13 Cloud.. 2 Sun. 4 Moon...
1	29	45	29	43	43	32	SE.	1 Cloud.. 2 Sun. 4 Moon...
2	29	60	29	54	36	32	S.	1 Mist...
3	29	63	29	63	35	32	S.	1 Cloud...
4	29	58	29	50	35	32	ShE.	13 Cloud.. 2 Sun.. 4 Mist..
5	29	40	29	38	38	33	78 SE.	1 Rain...
6	29	50	29	47	46	40	SWbS.SW...	1 Cloud...
7	29	54	29	51	49	45	SW...	1 Cloud.. 2 Sun..
8	29	56	29	52	49	39	SW...	1 Sun.. 4 Starl...
9	29	44	29	41	46	40	SW..	1 Sun...
10	29	61	29	55	45	37	SW..	1 Sun...
11	29	54	29	48	45	40	S.	134 Cloud.. 2 Sun..
12	29	70	29	63	44	38	12 N.	1 Mist... & Rain..
13	29	81	29	67	41	38	SSE.	1 Mist.... 2 Sun. 34 Clo....
14	29	88	29	88	43	35	Vble.	124 Cloud... 3 Sun.
15	29	90	29	87	43	32	W.	1 Sun... 4 Cloud..
16	29	78	29	62	35	28	S.	1 Mist... 4 Starl...
17	29	70	29	68	33	24	SbE.	1 Sun...
18	29	80	29	77	32	25	SSE..	1 Sun...
19	29	83	29	77	32	31	04 SW.NW.	1 Cloud... 3 Snow.
20	29	74	29	62	35	32	22 NE.	1 Cloud.. 2 Snow...

The quantity of rain during the month of January was 2 inches 16-100ths.

Observations on Diseases at Richmond.

The disorders under treatment were, Abortio, Colica, Cynanche tonsillar, Diarrhœa, Dyspepsia, Epilepsy, Erysipelas, Febris catarrhalis, Febris simplex, Gastrodynia, Hæmoptœ, Hæmorrhoids, Hysteria, Lumbago, Obstipatio, Odontalgia, Otagia, Paronychia, Phthisis pulmonalis, Podagra, Rheumatismus, Scabies, Scarlatina anginosa, and Scrofula.

THE METEOROLOGICAL JOURNAL,

From the 20th of JANUARY to the 19th of FEBRUARY, 1820,

By Messrs. HARRIS and Co.

Mathematical Instrument Makers, 50, High Holborn.

D.	Moon	Rain	Therm.			Barom.			De Luc's Hygrom.		Winds.		Atmo. Variation.		
									Dry.	Damp.					
20	D		33 34 31	29 61 29	25				17 18	NW	ESE	Fine	Fine	Sn.	
21			33 35 26	29 30 29	70				17 16	SW	NE	Clo.	Sleet	Fine	
22			30 31 27	30 09 30	21				15 12	NE	E	Fine	Clo.	Fog	
23			33 36 35	30 10 30	04				14 16	SW	SW	Rain	Rain	Clo.	
24			39 42 43	29 84 29	90				17 24	SSW	WSW	Clo.	Fine	Fog	
25	☉		14 45 44	29 87 29	47				26 23	S	S	Clo.	Clo.	Rain	
26			46 47 45	29 56 29	67				26 25	W	SW	Rain	Rain	Clo.	
27			48 50 44	29 60 29	40				23 22	SSW	WSW	Fine	Fine	Rain	
28			15 49 40	29 60 30	04				20 17	NNE	N	Fine	Rain	Fine	
29			12 47 40	50 20 30	15				15 13	N	SW	Clo.	Fine	Fine	
30	☽		42 48 42	30 05 30	07				15 17	WSW	SW	Rain	Clo.	Sleet	
31			44 47 39	30 03 30	10				17 15	WSW	SW	Clo.	Fine	Clo.	
1			42 45 34	30 00 29	90				13 12	S	SSE	Fine	Fine	Clo.	
2			35 40 35	29 87 29	93				11 13	ESE	SE	Clo.	Fine	Fine	
3			36 38 35	30 00 30	06				13 11	E	N	Clo.	Fine	Clo.	
4	☽		36 39 39	30 09 30	10				11 13	WNW	SSW	Clo.	Clo.	Fog	
5		,02	12 46 40	30 02 29	93				14 17	S	SSW	Clo.	Sleet	Clo.	
6		,04	44 47 46	29 90 30	09				20 24	W	WSW	Sho.	Clo.	Clo.	
7			48 50 46	30 17 30	20				23 20	SW	WSW	Clo.			
8			47 48 43	30 15 30	16				19 20	WSW	SW	Clo.	Fine	Clo.	
9	☽		44 50 44	30 07 30	03				19 17	SW	W	Fine	Fine	Clo.	
10		,03	16 48 38	30 00 30	13				15 10	WNW	W	Sleet	Fine	Fine	
11		,22	41 47 44	30 10 29	88				13 17	SSW	WSW	Clo.	Fine	Rain	
12		,24	16 49 41	29 88 29	05				16 16	W	ESE	Clo.	Rain	Sleet	
13			43 45 36	30 02 30	10				13 15	S	ESE	Clo.	Fine	Clo.	
14	D		39 41 34	30 25 30	26				16 13	NE	NE	Clo.	Fine	Fine	
15			35 36 28	30 32 30	32				12 12	ENE	NE	Clo.	Fine	Fine	
16			32 35 28	30 24 30	17				11 11	E	E	Fog	Fine	Fine	
17			30 34 26	30 13 30	11				11 10	E	SE	Fog	Fine	Fine	
18			29 35 32	30 12 30	10				10 12	E	NE	Fine			
19			34 35 30	30 12 30	08				13 14	NE	ENE	Fog	Fine	Sn.	

Rain Gauge frozen.

A REGISTER OF DISEASES

Between JANUARY 20th and FEBRUARY 19th, 1820.

DISEASES.	Total.	Fatal.	DISEASES.	Total.	Fatal.
Abortio	7		Febris <i>Synochus</i>	15	
Abscessio	7		— <i>Remit. Infant.</i> ..	6	
Acne	1		Fistula	1	
Amenorrhœa	4		Furunculus	1	
Anasarca	19	2	Gastritis	3	1
Aphtha <i>lactentium</i>	5		Gastrodynia	13	
Apoplexia	3	1	Gonorrhœa <i>pura</i>	11	
Ascites	18	1	Hæmaturia	1	
Asthenia	15		Hæmoptœ	14	1
Asthma	64	8	Hæmorrhoids	13	
Bronchitis <i>acuta</i>	10		Hemiplegia	1	
— <i>chronica</i>	5		Hepatitis	10	
Bronchocele	1		Hernia	4	
Calculus	2		Herpes <i>circinatus</i>	2	
Cancer	4		Hydrocephalus	5	2
Carbunculus	2		Hydrothorax	2	1
Cardialgia	7		Hypochondriasis	1	
Carditis	3	1	Hysteria	7	
Catalepsia	1		Icterus	3	
Catarrhus	97		Ileus	1	
Cephalalgia	13		Impetigo <i>figurata</i>	2	
Chlorosis	2		— <i>erysipel.</i>	1	
Chorea	3		Ischias	1	
Cholera	7		Ischuria	5	
Colica	5		Lepa	2	
— <i>Pictonum</i>	3		Leucorrhœa	10	
Convulsio	7		Mania	6	
Cystitis	1		Melancholia	1	
Cynanche <i>Tonsillaris</i> ..	17		Menorrhagia	7	
— <i>maligna</i>	3		Morbi Infantiles*	34	1
— <i>Parotideæ</i>	16		— <i>Biliosi</i> *	25	
Diarrhœa	16		Nephritis	2	
Dysenteria	6		Obstipatio	7	
Dyspepsia	35		Odontalgia	15	
Dyspnœa	18		Ophthalmia	16	
Dystocia	1		Otalgia	4	
Dysuria	4		Palpitatio	5	
Ecthyma	1		Paralysis	9	2
Eczema	2		Paraplegia	1	
Enteritis	4	1	Paronychia	1	
Entrodynia	4		Peripneumonia	5	
Epilepsia	3		Peritonitis	20	1
Epistaxis	3		Pernio	6	
Erysipelas	9	1	Pertussis	19	1
Erythema <i>læve</i>	1		Phlogosis	7	
— <i>nodosum</i>	1		Phrenitis	1	
Febris <i>Intermittent</i>	15		Phthisis Pulmonalis ..	25	5
— <i>catarrhalis</i>	17		Plethora	1	
— <i>Typhus mitior</i>	8		Pleuritis	8	
— <i>Typhus grav.</i>	5	2	Pleurodyne	5	

DISEASES.	Total.	Fatal.	DISEASES.	Total.	Fatal.
Pneumonia	23	2	Scrofula	8	
Podagra	3		Spasmi	1	
Porrigo <i>scutulata</i>	1		Strictura	6	
— <i>favosa</i>	2		Strophulus <i>intertinctus</i> ..	2	
Prolapsus	2		— <i>confertus</i>	3	
Psoriasis <i>guttata</i>	1		Syphilis	20	1
— <i>gyrata</i>	1		Tabes Mesenterica	6	2
— <i>inveterata</i>	1		Vaccinia	27	
Pyrosis	4		Varicella	7	
Rheuma <i>acutus</i>	20		Variola	42	7
— <i>chronicus</i>	32		Vermes	12	
Rubeola	13	1	Vertigo	12	
Rupia	1		Urticaria <i>evanida</i>	1	
Scabies	62		Total of Cases	1207	
Scarlatina <i>simplex</i>	2		Total of Deaths		48
— <i>anginosa</i>	1				

* *Morbi Infantiles* is meant to comprise those Disorders principally arising from dentition or indigestion, and which may be too trivial to enter under any distinct head; *Morbi Bilioi*, such Complaints as are popularly termed *bilious*, but cannot be accurately classed.

Observations on Prevailing Diseases.

SMALL-POX is still lamentably on the increase, and even the fatal cases will be found, on inspecting the returns, frightfully numerous. We must here take occasion to correct an error of the press in our last Number, in reference to variola. To that word ought to have been added, "after natural small-pox."

Mr. GAITSKELL'S Remarks, accompanying his Report.

ONE of the cases in this month's report, is that of a woman eighty years of age, who was attacked suddenly with apoplexy, which terminated in hemiplegic paralysis. In the course of an hour the other side of her body became strongly convulsed; so that there was, in this instance, a singular combination of apoplexy and epilepsy. By copious bleeding from the arm, aided by a strong purgative enema and a blister to the nape of the neck, the symptoms in a few hours subsided; and the next day she recovered her speech, senses, and use of her limbs. This is the fourth attack in the space of six years, and each time recovered by similar treatment.

The case of a patient I lately reported, of eighty-five, who was so highly benefited by bleeding as to recover her sense and speech, was two days after attacked with another paroxysm, and suddenly expired.

Remarks by Mr. FURNIVAL.

DURING this month, inflammatory affections of the thoracic and abdominal viscera have much prevailed. Phthisis has more than usually been excited; and in three cases of which disease, hæmoptoe, to a very alarming extent, supervened; to remove which, although in a very advanced stage of the complaint, and the patient much exhausted, phlebotomy, till it produced syncope, was reluctantly employed, but with the beneficial result of removing the patients from immediate danger. The derangements of the primæ viæ, evinced by frequent vomiting, diarrhoea, and pains alternating from the scrobiculus cordis to the umbilicus, and round the region of the bladder, seldom gave way till after the abstraction of from twelve to sixteen ounces of blood; and then a large dose of calomel and antimonial powder

every night, with a draught every four hours, composed of potassæ sulphat. pulvis rhei, and infusion of senna, produced plentiful fecal evacuations; after which the symptoms remitted, although in several cases the febrile excitement was alarmingly great.

There have been a few well-marked cases of acute rheumatism, attended with pneumonic inflammation, which were always relieved by copious venesection; and the reporter feels convinced, that the rheumatic fever was very much curtailed in its course by the depleting plan; two cases having occurred in the past month which are hardly convalescent, and the three reported in this month are all cured. Depletion in the former cases not having been carried to more than half the extent it was in the latter, the pneumonic attack rendered it absolutely necessary.

Anasarca has much prevailed in patients of advanced age, and which has been traced to (what they described themselves) taking cold. Venesection in one case only was resorted to, and that was to remove the urgent difficulty of breathing. The plan most frequently and beneficially adopted was the exhibition of a farrago of diuretics in a saline draught, viz. tinct. digitalis, tinct. scillæ, et spt. æth. nitrici, in large doses, assisted by a powder composed of potassæ supertarttras, ʒiij. pulveris gambogiæ, gr. iij. night and morning. Symptoms of amendment very speedily evinced themselves after the commencement of this treatment.

A case of some little singularity occurred, in a young woman aged twenty-two. The reporter visited her on Monday, the 7th; she had been put to bed a fortnight before; the labour was natural, and the local discharge had been regularly passing since that period; she complained of a burning pain in the region of the uterus, which attacked her about every two or three hours; it was always introduced by a slight rigor, and during its continuance it was accompanied by a very great degree of nervous excitability, the countenance rather flushed, a heavy weight on the top of the head, and the mental despondence was extreme; the pulse steady, and counted sixty in a minute; pressure was borne on the part affected, without giving pain; nor was the abdomen at all distended. During the intervals of the attacks she appeared perfectly well, but while under the influence of pain her mental anxiety was so great, that she felt confident she could not long survive. An enema, composed of Oiss. of water-gruel, ʒss. olei olivæ, and forty drops of tinct. opii, was administered every fourth hour; a saline draught, with thirty drops of spt. ammoniæ fetid. was given every third hour. The following day the pulse was risen to seventy, and her amendment was so great, that it was only deemed necessary to repeat the injection every morning and evening; and by using the ol. ricini as a laxative, the draught three times a day, and the injection occasionally, she has lost her unpleasant symptoms. In a conversation with a lecturer on midwifery about this case, he suggested that some small portion of the membranes might have been left in the uterus, which he had frequently seen cause such symptoms.

Remarks by Mr. PARKINSON.

THE case of vertigo occurred in a man of eighty-two years of age. The symptoms were proneness to sleep and considerable vertigo, with a large bounding pulse. Eight leeches were applied to the head, by which a considerable bleeding was effected, producing an immediate removal of all the symptoms.

The case of cynanche trachealis occurred in a young woman of eighteen years of age. The lungs were also affected; the respiration was short, cough very frequent and sonorous, with soreness of the throat immediately above the upper end of the sternum. Profuse bleeding removed these symptoms, the voice becoming very much impaired. (Can the application of blister over the parts affected, in similar cases, be proper? May not, from the

thinness of the interposed substance, the inflammation from the blister become extended to the trachea itself*?)

Cases of fever are rather increased, but are not accompanied by symptoms of the more serious kind. Small-pox has become very frequent, the poor resisting more strongly than ever attempts to induce them to submit to vaccination.

We shall only add, that we feel much indebted to those of our reporters who thus favour us with valuable additions to their lists of diseases.—EDIT.

Quarterly Report of Prices of SUBSTANCES employed in PHARMACY.

	d.	s.		d.	s.
Acaciæ Gummi elect.	lb.	5 0	Confectio Rosæ gallicæ		2 6
Acidum Citricum		23 0	— Sennæ		2 0
— Benzoicum	unc.	5 0	Emplastrum Lyttæ		6 6
— Sulphuricum	P. lb.	0 9	— Hydrargyri		3 6
— Muriaticum		2 0	Extractum Belladonnæ	unc.	2 6
— Nitricum		4 0	— Cinchonæ		3 0
— Aceticum	cong.	4 6	— Cinchonæ resinosum		6 0
Alcohol	M. lb.	5 6	— Colocynthis		4 0
Æther sulphuricus		12 0	— Colocythidis comp.		1 6
— rectificatus		14 0	— Conii		0 6
Aloes spicatæ extractum	lb.	7 6	— Elaterii		30 0
— vulgaris extractum		6 0	— Gentianæ		0 8
Althææ Radix exot.		1 8	— Glycyrrhizæ	lb.	6 0
Alumen		0 6	— Hæmatoxyli	unc.	0 6
Ammoniæ Murias		2 2	— Humuli		1 0
— Subcarbonas		4 0	— Hyoscami	unc.	1 6
Amygdalæ dulces		3 6	— Jalapæ	1s. 6d. Res.	3 6
Ammoniacum (Gutt.)		9 0	— Opii		4 0
— (Lump.)		5 6	— Papaveris		0 9
Anthemidis Flores		1 10	— Rhæi		2 0
Antimonii oxydum		7 0	— Sarsaparillæ		2 0
— sulphuretum		1 0	— Taraxaci		0 9
Antimonium Tartarizatum		8 0	Ferrisubcarbonas	lb.	1 4
Arsenici Oxydum		2 6	— sulphas		1 6
Asafoetidæ Gummi-resina	lb.	7 6	Ferrum ammoniatum		5 6
Aurantii Cortex		4 0	— tartarizatum		5 0
Argentii Nitras	unc.	6 6	Galbani Gummi-resina.		10 0
Balsamum Peruvianum	lb.	32 0	Gentianæ Radix elect.		1 4
Balsamum Tolutanum		30 0	Guaiaci resina		7 9
Benzoinum elect.		10 0	Hydrargyrum purificatum		6 0
Calamina præparata		0 6	— præcipitatum album		9 0
Calumbæ Radix elect.		4 0	— cum creta		5 6
Cambogia		8 0	Hydrargyri Oxymurias	unc.	0 8
Camphora		6 6	— Submurias		0 9
Canellæ Cortex elect.		4 0	— Nitrico-Oxydum		0 8
Cardamomi Semina	lb.	9 0	— Oxydum Cinereum		1 4
Cascarillæ Cortex elect.		3 0	— Oxydum rubrum		6 6
Castoreum	unc.	3 6	— Sulphuretum nigrum		0 4
Catechu Extractum	lb.	4 0	— rubrum		0 0
Cetaceum		3 6	Hellebori nigri Radix	lb.	3 0
Cera alba		4 0	Ipecacuanhæ Radix		19 0
— flava		3 6	— Pulvis		21 0
Cinchonæ cordifoliæ Cortex (yellow)		7 6	Jalapæ Radix		5 6
— lancifoliæ Cortex (quilled)		11 0	— Pulvis		6 6
— oblongifoliæ Cortex (red)		16 0	Kino		10 6
Cinnamomi Cortex		16 0	Liquor Plumbi subacetatis	M. lb.	1 6
Coccus (Coccinella)	unc.	2 9	— Ammoniac		3 0
Colocynthis Pulpa	lb.	16 0	— Potasse		1 8
Copaiba		5 6	Linimentum Camphoræ comp.		6 4
Colchici Radix		3 0	— saponis comp.		4 0
Croci stigmata	unc.	5 6	Lichen	lb.	1 6
Cupri sulphas	lb.	1 4	Lyttæ		16 0
Cuprum ammoniatum		10 0	Magnesia		10 8
Cuspariæ Cortex		3 6	Magnesia Carbonas		3 0
Confectio aromatica		9 0	— Sulphas		0 6
— Aurantiorum		3 0	Manna		7 0
— Opii		5 0	— communis		4 0
— Rosæ caninæ		2 0	Moschus pod. (34s.)	in gr. unc.	48 0

* We deem this suggestion to be very important in a practical point of view, and have ourselves long acted upon the principle it inculcates, both in respect of tracheal and other inflammations. Blisters as counter-irritants, ought indeed, in all cases of topical inflammation, so to be placed as that the inflamed vessels themselves shall not be implicated in their action.—EDIT.

	s.	d.		s.	d.
Mastiche	lb.	6 0	Rosæ petala	14	0
Myristicæ Nuclei	10	0	Sapo (Spanish)	2	6
Myrrha	7	9	Sarsaparillæ Radix (Lisbon)	6	6
Olibanum	3	0	Scammonie Gummi-Resina	unc.	3 6
Opopanax gummi resina	24	0	Scillæ Radix siccat. opt.	Ang. lb.	5 0
Opium (Turkey)	42	0	Senegæ Radix	4	0
Opium (East India)	0	0	Sennæ Folia	6	6
Oleum Ethereum	oz.	2 0	Serpentariæ Radix	7	6
— Amygdalarum	lb.	3 0	Simaroubæ Cortex	3	6
— Anisi	unc.	2 6	Sodæ subboras	4	0
— Anthemidis	6	6	— Sulphas	0	6
— Cassiæ	8	6	— Carbonas	6	6
— Caryophylli	5	0	— Subcarbonas	1	6
— Cajuputi	5	6	— exsiccata	5	0
— Carui	1	6	Soda tartarizata	2	6
— Juniperi Ang.	3	6	Spongia usta	unc.	24 0
— Lavandulæ	5	0	Spiritus Ammoniac	M. lb.	4 6
— Lini	cong.	6 0	— aromaticus	5	0
— Menthæ piperitæ	unc.	4 6	— fœtidus	6	0
— Menthæ viridis Ang.	5	0	— succinatus	5	6
— Pimentæ	unc.	6 0	— Cinnamomi	3	6
— Ricini optim.	9	0	— Lavandulæ	5	6
— Rosmarini	unc.	1 0	Spiritus Myristicæ	3	6
— Succini 2s. 6d. — rect.	5	0	— Pimentæ	3	6
— Sulphuratum P. lb.	1	6	— Rosmarini	4	6
— Terebinthinæ	1	0	— Ætheris Aromaticus	7	6
— rectificatum	2	0	— Nitrici	5	0
Olivæ Oleum	cong.	20 0	— Sulphurici	6	6
Olivæ Oleum secundum	14	0	— Compositus	7	6
Papaveris Capsulæ (per 100)	3	6	— Vini rectificatus	cong.	32 0
Plumbi subcarbonas	lb.	0 8	Syrupus Papaveris	lb.	2 0
— Supracetas	2	6	Sulphur		
— Oxydum semi-vitreum	0	9	— Sublimatum	1	
Potassæ Fusa	unc.	0 8	— Lotum	2	0
— cum Calce	0	6	— Præcipitatum	2	0
Potassæ Nitras	lb.	1 2	Tamarindi Pulpa opt.	2	0
— Acetas	10	0	Terebinthina Vulgaris	0	10
— Carbonas	4	0	— Canadensis	6	0
— Subcarbonas	1	2	— Chia	12	0
— Sulphas	1	3	Tinct. Ferri muriatis	5	0
— Sulphuretum	4	8	Tragacanthæ Gummi	5	0
— Supersulphas	0	0	Valerianæ Radix	1	8
— Tartaras	3	9	Veratri Radix	2	0
— Supertartaras	1	6	Unguentum Hydrargyri fortius	4	8
Pilulæ Hydrargyri	unc.	0 6	— Nitratæ	4	0
Pulvis Antimonialis	0	9	— Nitrico-oxydi	5	0
— Contrayervæ comp.	0	4	Uvæ Ursi Folia	2	6
— Tragacanthæ comp.	0	4	Zinci Oxydum	7	0
Resina Flava	lb.	0 4	— Sulphas purif.	3	0
Rhæi Radix (Russia)	38	0	Zingiberis Radix opt.	3	6
— (East India) opt.	10	0			

Prices of New Phials per Gross.—8 oz. 70s.—6 oz. 58s.—4 oz. 47s.—3 oz. 43s.—2 oz. and

1½ oz. 36s.—1 oz. 30s.—half oz. 24s.

Prices of second-hand Phials cleaned, and sorted.—8 oz. 46s.—6 oz. 44s.—4 oz. 35s.—3 oz. 30s.—2 oz. and all below this size, 25s.

MONTHLY CATALOGUE OF BOOKS.

Practical Observations on the Means of preserving the Health of Soldiers, in Camp, and in Quarters; with Notes on the Medical Treatment of the most important Diseases which were found to prevail in the Army during the late War. By Edward Thornhill Luscombe, M.D. 8vo.

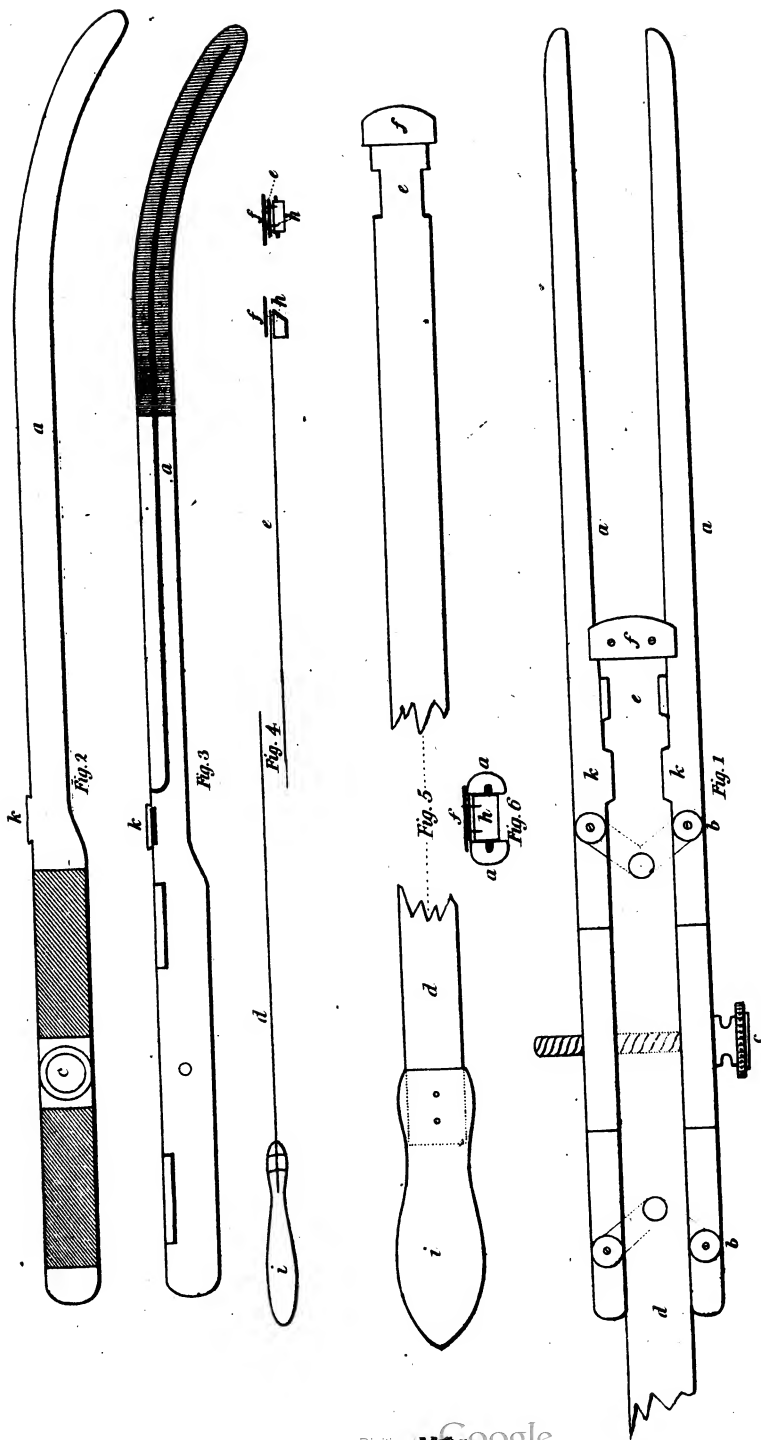
Pharmacologia; or, the History of Medical Substances, with a view to establish the Art of prescribing and of composing Extemporaneous Formulæ upon fixed and scientific Principles. By John Ayerton Paris, M.D., F.L.S. Third Edition, enlarged. 8vo.

NOTICES TO CORRESPONDENTS.

We are allowed to promise our Readers a Communication either in the April or May Number, from Mr. Battley, on the subject of Colchicum, which we are certain must prove highly interesting, from the intimations Mr. B. has already given us, of the nature and design of the paper.

Communications have been received this month from Mr. Gordon, Mr. Merveillant, and Mr. Brayne.

* * Communications are requested to be addressed (post paid) to Messrs. T. and G. UNDERWOOD, 32, Fleet Street.



W. C. Smith's Patent for the removal of Polypus.

THE
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PART I.
—
ORIGINAL COMMUNICATIONS.

L

On Epidemic and Pestilential Diseases. By T. HANCOCK,
M.D.

[Many occasions have presented themselves, since the commencement of our labours, of adverting to the much agitated question on the laws which regulate the production and spread of epidemic diseases; and we have always maintained, that disputations on this point have too great a tendency to an abstract turn and party bearing; the combatants, for the most part, seeming to consider it necessary that they should declare themselves decidedly on one or the other side. Greatly gratified, therefore, were we, in listening to the last Anniversary Oration delivered before the Medical Society of London, by our learned colleague, Dr. HANCOCK, in which the intermediate opinion, so to say, was advocated with great ability, and supported by an extensive reference to facts and authorities. The whole of this admirable Essay we would gladly lay before our readers, were we permitted so to do. We hope, however, to see it shortly submitted to the public, in the form of a separate pamphlet; and in the meantime, we must confine ourselves to a statement of its general data and leading inferences. — EDIT.]

DR. H. commenced by narrating the circumstances and peculiarities of the great plague of London, which visited this city in 1665, and summed up this history by the following deductions:—

1. The disease discovered itself about the end of the year 1664, and first appeared among the poor in St. Giles's.
 2. A severe winter arrested its progress till the next
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spring; and a long prevalence of southerly winds favoured its diffusion in the summer.

3. It was preceded by great mortality from other diseases, and particularly from an epidemic pestilential fever.

4. It was matter of doubt, whether this fever was the plague or not.

5. In the parish where it first prevailed, the mortality from other diseases was most decidedly marked.

6. It was progressive in its march from one part to another, ceasing or abating in the west before it proceeded eastward.

7. It exhibited various symptoms or characters in its beginning, height, and decline.

8. The train of diseases which had preceded it, on its decline re-appeared; and its decrease was, like its increase, moderate.

On each of these heads I shall take the liberty, said Dr. H., of making a few observations, chiefly with the view of comparing the phenomena of this formidable pestilence with those of other epidemic plagues.

First. The disease discovered itself about the end of the preceding year, and first appeared among the poor in St. Giles's.

I notice, he continued, the former fact to show that it is not unusual for an epidemic pestilence to exhibit some signs of its approach at the decline of the preceding year, at least in our northern latitudes.

This was the case in the plague at Nimeguen, in 1636, so well described by Diemerbroeck.

It was the case, also, in the plagues at Stockholm, Dantzic, and Hamburgh, about the beginning of the last century.

Mertens informs us, that the plague of 1771, in Moscow, began in the same manner.

In the latter end of the preceding year appeared the plague of 1478, and the black pestilence of 1348, in London. These all subsided the following winter.

After illustrating these several propositions in detail, the orator proceeds to remark, that,

A few corollaries of practical import seem to be deducible from the foregoing sketch:—

1. Condensed human effluvia, the product of local filth, and crowded ill-ventilated houses, as in large cities, are connected with the origin of almost all epidemic plagues; and their spread has been generally in proportion to the extent of those local causes.

Therefore, cleanliness in person, in houses, and in streets, is

of prime importance to prevent the first germ of contagion from coming into existence, or supporting its existence amongst us.

Therefore, all great cities, which, since the middle of the seventeenth century, have adopted judicious regulations in these respects, have experienced a corresponding benefit, and exemption from this great evil.

2. Epidemic plagues have, in all countries, been preceded by certain indications, (varied, however, much in different climates and seasons,) of a pestilential constitution of the air, either by unusual phenomena, or the prevalence of uncommon diseases.

Therefore, an indispensable accident, without which pestilential diseases cannot spread, so as to be entitled to the appellation of epidemic, is what is termed by Mead a corrupt or "ill state of air."

Therefore, human prudence might possibly avail much by regarding, with vigilant observation, the physical signs of the times, and especially by enforcing the regulations above alluded to.

3. Epidemic plagues have generally followed a stated rule in every place, both in the time of their beginning and the time of their decline.

Therefore, in other times or seasons of the year, and in other places where no precursory signs have appeared, their dissemination may be pronounced highly improbable; and if the mortality has been very severe, they will cease at the usual time; but if other epidemic diseases start up, their decline may be prognosticated with more certainty.

4. In all epidemic plagues, multitudes, even of those palpably exposed to the contagion, are not affected by it; others are affected very slightly; others are relieved from the sufferings occasioned by previous chronic disorders; others, though separated from their blood relations, have been seized at the same time with them; others, valetudinarians before, enjoy unusual health and alacrity, during the whole pestilential period; and others are seized with the disorder, without being able to trace it to any possible source.

Therefore, the risk of infection and of danger is by no means so certain as to create despondency, or to dissuade from active exertions in the public welfare.

Therefore, flight or seclusion does not always protect the timorous from the disease; but in such cases, the danger will be in proportion to the violence and spread of the epidemic; therefore neighbouring towns will seldom have much to fear, in opening their gates and hearts to the miserable fugitives.

Therefore, the observation of Lord Bacon is generally true,

that "the plague is noted to go in a blood more than from stranger to stranger."

Therefore the maxim is verified, that what is injurious to one is found to be beneficial to another; so widely do constitutions differ.

Therefore, the objection to a general state of air being in fault, that it does not display its effects more universally, is answered even by these facts, without reference to the signs of an ill state of air, or to the preceding epidemics, or to the state of the disease itself, and its acknowledged change of property in the beginning and decline.

Therefore, the probability is, that contagion is only subordinate, and does not act the primary and essential part in the dissemination of pestilence.

5. In all epidemic plagues, care and anxiety, filth and defective nutriment, hurry and fatigue, anger, and intemperance of every description, have acted as predisposing and accelerating causes of the distemper.

Therefore, calmness and regularity, patience under difficulties, careful ablution, a full, rather generous system of diet, under the guidance of temperance in every thing, the spirit of benevolence and piety, such as marked the conduct of Hodges and Diemerbroeck, Langeron and the Bishop of Marseilles, are better prophylactics and antidotes to the disease than can be supplied by all the "well stored magazines of health, and boasted implements of our art."

Dr. H. then went on to comment upon the analogies of yellow fever with plague, as far as those analogies have a bearing upon the mode in which the distemper, in either case, is generated and propagated: he further adverted to the circumstances connected with the origin and spread of other contagions, alluding forcibly to the admitted fact, that some diseases which are traced more positively to specific contagion are convertible occasionally into those that are not contagious; and with the following inferences was concluded this highly interesting and very candid discussion:—

These being facts, they are much better than doubts. The general inference from all may be summed up in a few words.

We have undoubted testimony, that certain chronic diseases, generally acknowledged to be contagious, originate amongst us in peculiar habits, under peculiar circumstances.

We have, also, undoubted testimony, that among acute diseases, common contagious fever originates at certain times, under certain circumstances.

It is supported by equal authority, that common contagious fever may be so aggravated by peculiar circumstances, as to assume characters of extraordinary malignity.

It is no less true, that the highest degree of common contagious fever has, on some occasions, approached so nearly to the plague, that a certain diagnosis has in vain been attempted.

Therefore, the probability, indeed the most natural inference, is, that the disease called epidemic plague is only the highest degree, or a variety of common contagious fever; and as the latter often originates without contagion, so, it is inferred, may the former; and if in one instance, so it may in many; and where there is a strong predisposition, it is impossible to conceive, but that morbid effluvia from the diseased to the sound must assist in propagating the mischief, by acting as a powerful exciting cause.

II.

On the Operation of Polypus of the Nose; with a Proposal for an improved Instrument. By THOMAS S. BOOTH, Surgeon, Barnet. (With an Engraving).

It is generally admitted, that the operation for polypus of the nose is not only the most unscientific and bloody in all surgery, but that it is one equally disgusting, both to the patient and the operator. Any improvement, therefore, upon the general mode of performing the operation, or of the instruments employed, may be considered as an addition to surgical practice. Impressed with this idea of the subject, I have transmitted a drawing and description of a pair of forceps and lancet, which, in my opinion, may be employed with advantage upon such occasions.

The instrument consists of two blades, (a a) curved in the same manner as the common forceps, and which are made to retain a parallel position with respect to each other, when either shut or opened, by means of the double hinges (b b). The screw (c) serves the purpose of tightening the blades, retaining them in one position, and regulating the distance between them. The polypus being enclosed between the blades, instead of tearing it away, as is the practice, it is removed by means of the lancet (f), which, being fixed at the end of a steel spring handle (d c), is thrust along the upper edges of the blades of the forceps, and by this means detaching whatever is enclosed between them, from the parts to which they were attached.

Fig. 2 and 3 are side views of the in and outside of a blade of the forceps. The handle part is roughed, and the inside of the blade is toothed to prevent its slipping. There are two small ears at (k) with a groove in them, to receive the edges of the spring handle of the lancet. In front of them, and at

the upper surface, is the beginning of a groove in the blade, which extends nearly its whole length, and which, by receiving two small projections, in the small piece to which the lancet is attached, directs its course, and prevents its getting out of contact with the upper surface of the forceps. In the steel handle at (e) are two notches which pass over the ears at the same time the projections enter the canal. A side and end view of the steel handle (e), the lancet (f), and small piece (h), with its lateral projections, are seen in fig. 4. The spring handle exactly corresponds in width with the distance between the forceps blades: it has a small handle (i), and should be about ten inches in length, that of the forceps being about six inches and a half. The lancet is rather wider than the handle, so as to rest upon the blades, but not project beyond them. A section, showing the relative position of the lancet and blades, is seen, fig. 6.

As all polypi are not possessed of equal bases, it will be necessary to have two or three lancets of different widths.

III.

Remarks on the present Practice of Cupping; with an Account of an Improved Cupping Glass. By JOHN GORDON, Licentiate Apothecary, Cork.

THE old method of producing a vacuum in cupping, by spirit of wine, which has lately been resumed, to the exclusion of the more troublesome and complicated exhausting syringe, although possessing advantages sufficient to recommend its general adoption in preference to the syphon, must, however, be confessed to fall far short of perfection. A great fault in the glass at present used arises from its shallowness, occasioning the almost certain consequence of the part to which it is applied, while the paper moistened with spirit is burning, being too much, very often painfully heated. Another inconvenience is created by the abstracted blood closing up, and preventing the lower incisions bleeding as freely as they otherwise would; and a very serious defect exists, in the operator's not having it in his power to regulate the pressure according to circumstances, or remove the glass altogether at any period of the operation, whenever it may be thought proper to do so, without causing unnecessary pain and trouble, and which, from the ordinary form of the glasses, cannot sometimes be avoided, particularly when attempted to be taken off immediately after application, or when the exhaustion is very great.

Having seen, in the number of the London Medical and

Physical Journal for November last, the figure, and read Dr. Machell's description of his apparatus for cupping, dry cupping, and drawing the breasts of women, it occurred to me, that the account of a glass I have invented and substituted for the common cupping glass, might not be uninteresting, particularly as I conceive Dr. M.'s machine will not, from the necessary expense attending it, be so generally used as it should be, from its decided superiority over every other contrivance of the kind.

The glass I wish to recommend, is in form almost that of a tubulated retort, (as may be seen by the subjoined sketch,) differing, however, from it, in its body being comparatively longer, its neck much shorter, and its mouth considerably broader, with the addition of a small brass stop-cock, accurately fitted into the tubulure in its neck. The mouth, I have found it expedient, should vary in size, according to the part for which it is intended, but the body of all may be of the same capacity—say half a pint, which I consider sufficiently large, and at the same time not too much so.

This glass I have found to remedy completely the many inconveniences of the common one. The bottom, on which the paper burns, is so far removed from its mouth, as to prevent the possibility of the part to which it is applied being in the most trifling degree heated; and the blood flowing to the lower part of the vessel will not, as in the other instance, shut up the orifices; while the very complete control the operator, by means of the stop-cock, possesses over the exhaustion, with the very accurate manner in which the quantity taken can be ascertained, by the glass being graduated on the outside, will, I am induced to hope, insure for it a preference to every other of the kind, and rank it next, in point of convenience, &c. to Dr. Machell's elegant but expensive apparatus.

It may not be irrelevant to add, that, in many situations where the skin is lax, and does not afford sufficient resistance to the scarificator, such as the side, epigastrium, &c. and particularly when the patient is very averse to the instrument, I have ascertained that the punctures of ten or a dozen strong leeches will yield to the glasses full as great a produce as can be obtained from the largest set of incisions; and have also found that these retort-shaped glasses are extremely convenient for applying them, from the twofold advantage their form affords for that particular purpose: for instance, in the application of leeches to the temples, sternum, &c. of a person sitting in a chair, with the glass usually employed on these occasions, it is sometimes, indeed frequently, impossible, without a great deal of trouble and loss of time,

to make them take, from the lateral position of the glass favouring their crawling to its bottom; whereas, by inverting this glass, and placing its mouth over whatever part it is wished to apply them to, they will either slide to their proper situation, or can be shaken down to it, without any inconvenience whatever to the patient; and by the operator's using, in the first instance, the glass he means subsequently to employ, he will be enabled to embrace with that one, or any other, the mouth of which is not smaller, all the orifices; which, in situations where two cannot be conveniently applied, is of some importance.

Having repeatedly used these glasses with very great convenience, expedition, and effect, I can speak from experience, and strongly recommend their employment in all cases of cupping.



IV.

Case of Carious Os Frontis. By J. G. DE MERVEILLEUX,
Member of the Royal College of Surgeons in London;
Surgeon to the Royal South Lincoln Militia, Stamford.

SARAH OLIVER ORMRAD, a pauper belonging to St. John's parish, Stamford, aged forty-three years, applied to me January, 1815, with two sores situated on the upper part of the forehead: they discharged copiously a thick white pus. Upon examination with a probe, the os frontis was found bare, and felt rough: she had great pain in the head, and a node on the tibia. She was immediately put upon a course of mercury, which relieved her head of pain; and the node disappeared: there was not the least appearance of exfoliation. A lotion of sulphate of zinc was employed without any good effect. She went again through another course of mercury seven weeks without any relief. There were two more openings in the integuments covering the diseased bone. I made an incision which exposed half of the os frontis, which was carious; and in two places the finger might be passed through the external table into the diplæ.

There not being the least chance of removing the dead

bone by a lever, I applied the trephine in the most sound part. Upon removing the first circular piece of bone, pus issued from the dura mater, which appeared not very healthy; the internal surface of the bone was completely detached from the dura mater. The operation of the trephine was repeated seven different times; the intermediate pieces of bone being removed by the lever, till the whole of the diseased portion was detached. The patient took decoction of sarsaparilla and a milk diet. The dura mater threw up healthy granulations, and in the course of a few months perfectly healed, and has since continued well.

V.

Case of Hydrocephalus: with Dissection. By T. W.
WANSBROUGH, Surgeon, &c. Fulham.

THE following dissection I transmit for insertion in the REPOSITORY, as a case of chronic hydrocephalus, which, previously to the fatal termination, had been marked by symptoms denoting high inflammation, and which inflammation was reduced by the repeated application of leeches to the number of twenty-four. Beyond this I was not permitted to proceed, upon the supposition of hydrocephalic irritation, as the disturbance was attributed, by other gentlemen who witnessed the disorder with me, to dentition merely.

To the inflammatory symptoms extreme marasmus succeeded, and the little sufferer died in about six weeks from the subsidence of these symptoms.

It is proper to state, that strabismus was observable, that the head was unusually large, and that the fontanelle remained all along as open as it was at the birth of the child.

The dura mater closely and firmly adhered to the portion of cranium that was removed. A considerable effusion of sanious fluid had existed between the dura and pia maters, which escaped in consequence of penetrating those membranes with the saw. The quantity of this fluid might be about four ounces. Upon removing the detached portion of cranium, the whole surface of the pia mater exhibited a thick coat of coagulable lymph, semi-transparent, through which were seen the vessels of the pia mater and of the brain, in a highly turgid state. These, together with the longitudinal sinus, were literally gorged with blood. The lateral ventricles were considerably distended by about two ounces of opaque fluid. The plexus choroides were nearly absorbed; their whole character was entirely changed, a pulpy, trans-

parent mass only remaining. The substance of the brain was so soft as to require care in the removal of it.

Observations.—The dura mater adheres more firmly to the bone in young subjects, because the bone is yet imperfect, and its surface spongy and rough; and, for the same reason, it is more firmly attached to the skull in the chronic hydrocephalus, because the ossification is yet imperfect.

VI.

*The concluding Part of a Correspondence which appeared in the
REPOSITORY of last Month.*

[Transmitted by WILSON PHILIP, M.D., &c.]

ABOUT a fortnight after the date of Mr. Brodie's last letter, Dr. W. Philip addressed the following to that gentleman:—

Worcester, March 3, 1820.

SIR,—As I have received no answer to my first query, relating to the manner in which the animal was prepared for your experiment, and this appears to me of considerable consequence in settling the point between us, I will thank you for your answer; and also to inform me, whether there was any appearance of inflammation in the stomach of either of the rabbits.

I have the honour to be,

SIR,

Your faithful humble servant,

A. P. W. PHILIP.

To B. C. Brodie, Esq.

Mr. Brodie returned the following answer:—

Saville Row, March 5, 1820.

SIR,—Both animals, in my last experiment, were fed after a fast of about sixteen hours. I did not observe any appearance of inflammation in the stomach of either of them; but my attention was not particularly directed to this point.

I have the honour to be,

SIR,

Your obedient Servant,

B. C. BRODIE.

To Dr. Wilson Philip.

The following is Dr. W. Philip's reply to the above :—

Worcester, March 9, 1820.

SIR,— I yesterday received your reply to my last letter, from which it appears, that the animals were properly prepared for the experiment. Your answer to my question, respecting the appearance of inflammation, greatly surprises me, as, by referring to my Inquiry, you will see that I have, from the first, regarded inflammation of the stomach as the criterion that the proper power of galvanism had been employed. In the 216th page of the first edition it is said, "We could never succeed," that is, in the newly dead animal, "in producing the slightest appearance of inflammation, either in the stomach or bowels, *an effect which uniformly attends digestion supported by galvanism.*" And again, page 135, "The thoracic viscera, in short, were rather in a state of high inflammation, *an effect always produced by a considerable galvanic power in the part to which it is directed.*" I therefore expected, that in repeating my experiment, your attention would have been particularly directed to this circumstance. It is impossible, however, to see a stomach, which has for a sufficient length of time been exposed to such a power of galvanism as I have found necessary to produce digestion, without being struck with its inflamed appearance*.

I mentioned, in my letter of the 14th ult., such reasons as assured me that the stomach, in your last experiment, had not been sufficiently exposed to the galvanic influence. What you now state leaves no doubt on this head. As there was little or no inflammation excited in the stomach, it is *certain* that the galvanic power which you employed was either too weak, or not sufficiently directed to the stomach. We need look no further for the difference of result between your experiment and mine. Thus it appears, that both your repetitions of my experiment leave the subject in precisely the same predicament as if neither of them had been made, with this exception, that the efforts to vomit having been prevented by so small a power of galvanism, affords a striking, because an unintentional confirmation of the result I obtained.

In case the experiment should again be repeated, I think it necessary to call your attention to the following circumstances, which are not less essential than the degree of the

* The inflammation of the organ to which the galvanism is chiefly directed is easily accounted for. It is not to be supposed that we can, by the artificial application of galvanism, direct it in the proper quantity to the proper parts in such a way as not to supply more to some, and less to others, than nature supplies.

galvanism, and its mode of application. Although your experiments stand in opposition only to my shorter galvanic experiment on rabbits; for as to that in which the galvanism was continued for sixteen hours, no attempt has been made to repeat it; yet you adopt the rule which, according to my method, necessarily produces an experiment of long continuance; for your object is to employ no stronger power of galvanism than is requisite to produce a twitching in the fore-legs. In my shorter experiment, which lasted only six hours, the power of the galvanism was much beyond this degree, producing general contraction of the muscles, (page 224, second edition,) and proving fatal to the animal in the above short space of time. I found it more conclusive to employ a comparatively weak power of galvanism, that the animal might be longer exposed to it; but you employed this weak power, and yet, by killing the animal at the end of five or seven hours, defeated my object in having recourse to it. You wholly deviated from my principle, when you killed the animal by any other means than the galvanism. You will perceive, from all I have had occasion to say, how very far from correct is the observation in your first letter, that you could discover only one point of difference between your first experiment and mine.

It is also proper to remark, that the old trough, which I observe in my treatise I always used, is preferable in such experiments to the improved pile, because in the former the number of plates is greater in proportion to the surface; and I have found that it is on the intensity, not on the quantity of the electric power, that the above effects on the animal body depend. I had occasion to address some observations on this subject to Dr. Thomson, which were published in the eleventh volume of the *Annals of Philosophy*, page 117*.

I have the honour to be,

SIR,

Your faithful humble servant,

A. P. W. PHILIP.

To B. C. Brodie, Esq.

* Although I have, in my first letter, replied to an experiment of Mr. Brodie's on the frog, I think it proper to observe, in concluding this correspondence, that had the wound healed perfectly, in this experiment, it could not have been adduced as an argument against inferences from experiments made on the warm-blooded animal; for the functions of the nervous system in warm and cold-blooded animals

VII.

Reply to DR. WILSON PHILIP. By W. HUTCHINSON,
Editor of the Medical and Physical Journal.

[It was with some reluctance that we admitted, in our last Number, that part of Dr. WILSON PHILIP's Paper which referred to Mr. HUTCHINSON's Strictures; and we are happy in the opportunity which the present occasion offers to express our sincere respect for that gentleman's splendid talents and varied information. While we are anxious to oblige all our Correspondents to the greatest reach of propriety, we shall ever, it is to be hoped, feel the utmost repugnance to the adoption of any measures which should imply a deficient liberality towards contemporary labourers in the vast vineyard of medical science. — EDIT.]

IN the last Number of the LONDON MEDICAL REPOSITORY there are some remarks by Dr. Wilson Philip, on some statements made by me in a proëmium to the 43d volume of the London Medical and Physical Journal. As those remarks, with the exception of two trivial points, appear to me to admit of the most decisive refutation, I beg to transmit the following reply to them: —

In two instances I have erred, in the statements referred to by Dr. Wilson Philip; the one, in saying that this gentleman had not noticed the acephalous fœtus; the other, in attributing to him experiments which were made by Legallois. But I did not by this impugn any opinion of Dr. Wilson Philip; and those experiments, if applied to his opinions, must, *by him*, be considered to *favour* them: the facts were impressed on my mind; and adducing them amongst my arguments, seven years after the perusal of the work of the French Physiologist, and two after that of the latter gentleman, my memory so far deceived me as to make me attribute to the repeater of the greater part of Legallois' experiments what is due to Legallois himself. Although I daily have occasion to congratulate myself on my memory and powers of recollection, I cannot, in this instance, be surprised that they have deceived me: the principle, that the action of the heart will go on after the destruction of the spinal marrow, is the most important one established in Dr. Wilson Philip's 'Inquiry;' it does not, therefore, I repeat, surprise me, that the idea of that gentleman was identified with the executor of those experiments, which most clearly prove the fact just

differ so much, that the frog will perform motions of volition, and even sit in its usual posture, for several days after the head is removed. When we descend lower in the scale, we find animals capable of regenerating whole members; and at length, some, the different parts of which, when they are cut into pieces, live as distinct animals.

alluded to. This is an error, I confess it with regret; but the branding it with the epithet of a "*gross violation of the implied compact between a reviewer and the public*," as Dr. Wilson Philip has done, is a "*gross violation*" of propriety in that gentleman's manner of stating the case in question. It has no relation to the "*compact between a reviewer and the public*." I was not reviewing his book, but arguing on a point of physiology, and referred to Dr. Wilson Philip's '*Inquiry*,' as I did to the works of Bichat, Legallois, Psaff, and others, for such facts as were impressed on my mind, and which I thought proper to adduce.

Dr. Wilson Philip says, "What is meant by the assertion that I have refuted the notions of Bichat, respecting the [*functions of the*, should come here—*Proëmium*, page xx.] ganglian system and the loose and remote analogies, I know not." The best reply on my part to the first of these propositions, is the following passage from the second edition of this gentleman's '*Inquiry*:' "It seems to be superfluous, after the experiments which have been related, to say any thing in refutation of the opinion of Bichat, that the ganglians are centres of nervous influence, independent of the brain and spinal marrow."—(*Inquiry*, page 185.) I have stated in the *Proëmium* (page xxiii.) some of what I consider to be Dr. Wilson Philip's "loose and remote analogies:" extending the list of them, is not, I consider, necessary, in order to substantiate my assertion.

Dr. Wilson Philip says, with a reprobative air, that I passed "unnoticed various other parts of my (Dr. Wilson Philip's) treatise; all the experiments, for example, which I have detailed for the purpose of proving that the organs which are under the ganglian system are affected by stimuli applied to the brain and spinal marrow." I passed those experiments unnoticed, because I did not think it necessary to notice them in the view I took of the physiological question on which I was reasoning*; and had I thought proper to notice such experiments, it is likely that I should have chosen what I consider more authentic sources in my reference to them. So far, however, from being unacquainted with the

* The second edition of Dr. Wilson Philip's '*Inquiry*' was published nearly a year previously to the period which I professed to comprise in my '*History*,' &c.; and, therefore, it was not a subject for regular analysis, though I might think proper to notice any particular parts of it, as I would do in a work published centuries ago. Every author, whose opinions are noticed in the *Proëmium*, might, with equal propriety, impute blame to me for not having adduced all the observations contained in his works.

fact to which Dr. Wilson Philip alludes, I reason on it in the course of my arguments on the question alluded to.— (*Proëmium*, page xxiii.)

Dr. Wilson Philip says, also, I argue against his “supposed opinion, that the existence of some part of the spinal marrow is necessary to the action of the heart.” Here my statement is placed in a wrong aspect. I began by saying, that the only important argument brought against the doctrine of Bichat is, that “*THE FUNCTIONS HE STATED TO DEPEND ON THE INFLUENCE OF THE GANGLIONIC SYSTEM OF NERVES cease on the destruction of the brain and spinal marrow;*” and though, in page xxii., I use the expression, *action of the heart*, as a mean of designating the existence of those functions, I refer to a note in which I expressly state this*. I use the same term, in the same sense, in page xxi.; and there, too, I refer to a note, stating that Haller’s doctrine of this, which Dr. Wilson Philip has *adopted*, need not be discussed, because it is now generally abandoned. Dr. Wilson Philip acknowledges, that the action of the heart will proceed after the destruction of the brain and spinal marrow; but he denies that “*the functions (BICHAT) stated to depend on the influence of the ganglionic system of nerves,*” are essentially independent of the brain and spinal marrow. It was against this doctrine that I argued; and I believe my meaning has been perfectly intelligible to every other reader.

Dr. Wilson Philip’s next remark is, “He ascribes to me the opinion, that the ganglion system retains the nervous influence, ‘like a sort of reservoir;’ whereas I have made many experiments, and detailed many observations, expressly with a view to prove that the ganglion system is not a reservoir of nervous influence, but a mere channel through which it flows.” The best reply to this, is a passage in the second edition of that gentleman’s ‘*Inquiry*’; but I will first transcribe my own remark just alluded to.

“Another supposition that Dr. Philip has adopted to support his hypothesis, is, that the ganglionic system derives its nervous influence from the spinal marrow, but that it retains it for some time, like a sort of reservoir; and, therefore, the actions dependent on its immediate influence proceed until this supply is exhausted.”— (*Proëmium*, p. xxii.)

“Although we have reason to believe, I think, from every

* The note in question is: “This phenomenon (*the action of the heart*, stated in the text) is alone mentioned, because it is the most sensible and important one; but the secretions and other functions of nutritive life, are in general similarly influenced by the experiments under consideration.”

observation on the subject, that the brain and spinal marrow are the only sources of nervous influence; yet it is evident, that a certain portion of this influence remains in the nerves when separated from these organs, as appears from the contractions excited in the muscles by irritating their nerves under such circumstances. The muscle will thus be made to contract as long as any influence remains in the nerve; but this being once exhausted, the nerve has no means of renewing it." *Inquiry*, p. 203 and p. 204, it is stated, "As long as we can, by artificial respiration, occasion such a change in the blood as elicits nervous influence, the blood draws it from all the nerves of the ganglion system; and it does not appear that we can support this change long enough to exhaust the nervous influence already in the nerves, and occasion any further demand for it."

Dr. Wilson Philip has not used the term *reservoir*; but he has stated what must convey the same *idea*. The functions in question (some of my readers may perhaps not know it,) will go on for several hours, under the circumstances above designated. If, then, the ganglionic nerves continue to supply nervous influence during that time, when the sources of such influence are removed, must they not retain it "like a sort of reservoir?" I know no epithet in the English language better calculated to express, in one term, the substance of the many sentences in which Dr. Wilson Philip has developed the same idea as that epithet conveys. Here, then, my supposition of that gentleman's opinion is merely a repetition *in other words*, but *not in other ideas*, of his own statements, of which, I agree with him, "*I think the reader has seen enough.*" To his remark on my reasonings, I only reply, that I am not at all desirous that he should entertain a more favourable opinion of them.

DEPARTMENT OF NATURAL HISTORY, &c.

Calendar of Flora and Fauna, kept at Hartfield, near Tunbridge Wells. By Dr. T. FORSTER, from the 15th of February to the 18th of March, 1820.

Feb. 15th. — *Narcissus latus*, *N. Tazetta*, &c. in blow in the house: Bulfinches become numerous in the gardens.

23d. — *Galanthus nivalis* and *Heleborus hyemalis* in flower in the open ground at Maresfield. The Birds begin to sing early and late. Some Crocuses (*Croci vernaes*) in blow under shelter of the house.

26th. — A return of N. E. wind, and showers of sleet in

the morning, which was very raw and cold. *Hyacinthus Orientalis* in blow in the house.

March 5th. — I observed, at Walthamstow, Snowdrops abundantly in flower this morning.

8th. — This was really a spring day, and was very fine, though the wind remained northerly. I noticed the Winter Hellebore in flower at Upton in Essex. *Primula vulgaris*, and its several varieties, called Polyantheses, are in blow at Walthamstow; and Snowdrops are numerous.

Mr. B. M. Forster to-day discovered a curious vegetable phenomenon in London Fields. On cutting down a poplar tree, it was discovered that its roots, instead of descending into the ground, had returned upwards, and grown into the stump of the tree, which was thus nourished by a re-absorption of its own substance.

15th. — This was the first warm spring day: the air was mild and serene, and the temperature increased, though the wind was north and east. Crocuses in full flower, and the purple variety of *Anemone hepatica*, at Walthamstow. Frogs and various insects came forth. Two Bats were seen flitting about in the evening.

16th. — Warm, and gentle south-east wind, and very fine afternoon. I observed the Willows (I believe *Salix caprea*,) in bloom as I rode from Landedon Hills to Brentwood, by Burstead: but this is certainly a late spring, compared with last year.

18th. — Primroses and some other spring flowers begin to be vended in the streets and markets of London. Several shrubs begin to bud; and the *Tussilago alba* is in full flower at Clapton.

[This Journal is to be continued in the neighbourhood of Tunbridge Wells.]

PART II.

GENERAL REVIEW

OF

MEDICAL LITERATURE,

FROM JULY 1819, TO JANUARY 1820.

[Continued from page 249.]

SURGERY.

UNDER this division of our general retrospect we have little to record. The second part of Cooper's and Travers's
VOL. XIII.—NO. 76.

Surgical Essays constitute the main feature of the last half year's publication; and of this book we have nothing further to say in this place, than that our readers will find the volume amply analyzed in another part of our present Number.

A second edition of Scarpa on Aneurism* has made its appearance in an English dress, in which is found "a memoir on the ligatures of the principal arteries of the extremities." In this memoir it is contended, that the rupture of the internal and middle coats of the vessel is by no means a necessary object to be obtained by ligature in order to obliterate its canal; but that the adhesive inflammation, and, consequently, permanent union of its opposite parietes, will be accomplished much more speedily and satisfactorily by their being kept in mutual contact. In order to obtain this quick and permanent closure of the artery, the old method of single tape† ligature is recommended with the interposition of a small cylinder of linen spread with ointment between the tape and the artery. "This," says the author of the memoir, "is easily and quickly applied; and it is sufficient of itself, or by means of simple pressure, to produce quickly in the artery the proper degree of adhesive inflammation, which is required for the speedy union and complete closure of the arterial tube. And, (continues the writer,) considering the great number of cases which have terminated favourably, compared with others in which a totally different mode of ligature had been employed, I do not hesitate again to assert, that the good effects of this practice will always correspond with our expectations, in every case where the ligature, with the interposition of the small cylinder, has not been applied upon a portion of artery disorganized or deprived of its vitality, or in patients very much debilitated; such a misfortune would then be inevitable, whatever mode of ligature was employed."

An appeal is made from Dr. Jones's opinion in favour of the circular ligature with twine, as immediately operating the wished-for effect of obliterating the arterial tube, by rupturing the internal and middle coats of the vessel, to Mr. Hodgson's experiments, instituted in order to ascertain this point; and upon the whole it is concluded, that there can be no further

* A Treatise on Aneurism, with numerous additions; and a memoir on the ligature of the principal arteries of the extremities. By Antonio Scarpa.

† The author employs the word *tape*, (*nastrino*), to signify a ligature, composed of from four to six waxed threads, according to the size of the artery to be tied.—T.

room for hesitation, with regard to the preference to be given to that mode of ligature, which unites in itself the triple advantage of preserving entire all the three coats of the artery, of exciting quickly, and in a proper degree, the *adhesive* inflammation in them, and of retarding as much as possible the ulcerative process of the arterial tube."

The following are the conditions under which it is necessary to apply this mode of ligature in order to ensure the advantages which, when properly used, it is alleged to afford—"1. Only to insulate and detach the artery to be tied to the small extent for allowing a ligature to be passed around it. 2. That the cylinder of linen do not exceed in length a line, or a little more, above and below the breadth of the tape, which is about a line for the large arteries of the extremities. 3. That the constriction of the ligature be not too great, but, nevertheless, sufficient to bring into close contact the two opposite internal healthy parietes of the artery. 4. That the ligature be never applied immediately below the origin of a large *lateral* branch."

The removal of the ligature is recommended on the third or fourth day, "there being no rational motive for waiting beyond this time for the spontaneous separation of the ligature, or for allowing it by the delay to *ulcerate*, and even open the artery at the principal point of its adhesion, and resistance to the impulse of the blood." To prove the expediency and safety of doing this, several cases are recorded in the memoir.

We had intended to notice in this place the publication of Sir William Adams on the artificial pupil*, as well as the report on the out-pensioners of Chelsea Hospital†. In consequence, however, of Mr. Guthrie's more recent publication on the subject of artificial pupil, we purpose, in our next Number, to give a review of the above three pamphlets in one article. An account of Bew on the teeth will be found in another part of our present Number.

MIDWIFERY.

Nothing appeared on this topic worthy notice during the semi-annual period which the present retrospect applies to, with the exception of Mr. Windsor's paper on extirpation of an inverted uterus, published in the tenth volume of the Medico-Chirurgical Transactions. Mr. W. applied the liga-

* A Treatise on Artificial Pupil; in which is described a series of improved operations for its performance, &c. &c. By Sir W. Adams.

† Report submitted to his Royal Highness the Commander-in-Chief, upon the subjects of the out-pensioners in Chelsea Hospital, that have been under treatment for diseases of the eyes, &c.

ture, in this case, on the 22d of August; and on examination upon the evening of the twelfth day from the application of the ligature, "the thin, or rather broad peritoneal surface of the uterus appeared to be the only portion remaining undivided; it was therefore thought advisable to complete the separation by dividing this part with a pair of scissors, which gave very little pain." Upon examining the part of the organ thus separated, it was found that the ovaries and fimbriated extremities of the tube were left behind. The length of the fallopian tubes removed, measured two inches and a half on each side; the extremities of them on the naturally internal rugous surface of the uterus admitted a bristle; coagulated lymph in small quantity, and but slightly adherent, was observed on the peritoneal surface, but the uterus was open at the part where it was divided, the opposed peritoneal coverings having not become sealed together by the adhesive inflammation. The mouths of a few blood vessels appeared on the rugous surface.

At the conclusion of his paper Mr. Windsor offers a few suggestions on the best mode of removing the uterus in those cases of inversion where palliative means are insufficient to arrest the fatal tendency of the disease; and he gives a decided preference to the excision of the organ before the removal by ligature, conceiving that in most cases of chronic inversion the adhesions that are formed, and connexions that are established between the parts and the rectum as well as the bladder, may tend to preclude the exposure of the peritoneal cavity; and "after the protruding uterus is removed, the os uteri seems soon to be restored to its contracted state, which will assist in preventing any prolapsus of the abdominal viscera through this part." Mr. W., however, thinks it would be prudent, even when excision should be practised, "to secure the uterus above by a ligature, in order that any hæmorrhage might be more easily commanded: in a day or two (he says) the adhesive inflammation might be powerful enough to prevent any further danger of hæmorrhage, and the ligature might then be safely removed."

Under the present section of our general review, it may not be absolutely misplaced to introduce the mention of a very ingenious paper by Dr. Blundell, likewise published in the last volume of the *Medico-Chirurgical Transactions*, on the physiology of generation. In this paper we have a series of experiments on rabbits, in which the communication was intercepted between the vaginal and fallopian portions of the uterine system; and the consequences of sexual connexion were, in these instances, merely enlargement and development of parts without actual impregnation. Dr. B. is there-

fore led to the conclusion, that the sympathetic theory of generation is fallacious, and that the semen must have actual access to the rudiments for the completion of the generative process. As corpora lutea were occasionally found in the ovaria when thus detached from the other portions of the uterine system, Dr. B. further infers, that the luteum is not a proof of genuine impregnation; he says, indeed, "There seems to be little reason for doubting that the corpus luteum may be produced, even independently of the sexual intercourse, by the mere excitement of desire in a very high degree." The whole of this paper, we think, is drawn up and argued with much candour and ability; and the conclusions seem almost incontestably to follow upon the experimental premises.

MATERIA MEDICA.

We are gratified in witnessing a spirit of inquiry beginning to pervade the several ranks of our Profession, as to the precise composition and agency, single and combined, of the various articles that are used in medicinal prescription—a spirit which will be fostered by the recent publication of Dr. Paris. That work, however, does not properly fall before our notice in this place; since the appearance of the last and much enlarged edition has been subsequent to the period which this review embraces; and the only important addition to our materia medica knowledge, made in this country, during the period referred to, is that of which the REPOSITORY was the vehicle; which we see is adverted to by Dr. Paris; and which, we understand, is practically acknowledged by many of our most eminent chemists. We allude to Dr. Clutterbuck's very important experiments in order to ascertain the part of the wild cucumber plant in which the elaterium resides*. In our review of Dr. Paris's work, preparing for the next Number, we shall have to advert again to this subject, and must here content ourselves with simply referring to that Number of our Journal in which Dr. C.'s interesting experiments will be found recorded†.

MEDICAL JURISPRUDENCE.

In reference to this particular, also, we must claim some credit. It will be recollected, that we presented to our readers a general account of nearly all the works which have been published on this topic‡; a topic which has hitherto

* See REPOSITORY, Vol. XII. page 3.

† To the new method of making extracts *in vacuo*, we shall also have to advert, when reviewing Dr. Paris's Treatise.

‡ See REPOSITORY, Vol. XII. page 415. This elaborate and able review was furnished by Dr. Palmer.

been much neglected among our own countrymen. It was with much pleasure that we heard that article on medical jurisprudence spoken of with approbation by Dr. Gordon Smith, in a very able lecture, introductory to a series on this department of medical science, which is now in the course of delivery; lectures which, we are given to understand by some of the auditors, are highly interesting and instructive. Dr. G. Smith has likewise announced his intention of publishing a treatise on forensic medicine; and we see the same intention signified by Mr. Hutchinson, who, in the journal he so ably conducts, has already commenced a series of papers on topics more immediately connected with this inquiry.

We now bring to a close this general estimate of the progress of medical science by the notice of a few

Miscellaneous Publications:

And among the most interesting of these, the Transactions of the Medical and Chirurgical Society deserve to be ranked. We owe an apology to our readers for not having quite kept pace with the publication of these volumes; and we are now compelled, for want of space, to limit our remarks to that recently published*; viz. the second part of the tenth volume; which, though perhaps not equal in interest to some of the prior volumes, contains many excellent papers; not one of which, indeed, we should have wished to have been suppressed. Of Dr. Blundell's essay on generation; Sir Gilbert Blane on vaccination; and Mr. Windsor on the excision of the uterus, we have already made pretty copious mention; and we now hasten to present a slight sketch of those which remain.

The second paper in this series is entitled "some observations on a mode of performing operations on irritable patients; with a case where the practice was successfully employed." It is by Mr. Wardrop. The disease for which the operation was performed was a tumour on the orbital plate of the left frontal bone, the base of which adhered firmly to the bone, whilst the exterior portion was attached to the integuments, in which there was a small sinus, leading to the interior of the tumour. The subject, (a female,) although she came from a distance in order to be operated on, invariably resisted with violence when the scalpel touched the integuments; and it occurred to Mr. W., that if she would allow herself to be bled *ad deliquium*, the tumour might be extirpated while she remained insensible. This was done by the withdrawing of fifty ounces of blood, and the syncope

lasted sufficient time to allow the tumour to be removed. Mr. W. was further instigated to this measure by considering that loss of blood tends generally to promote recovery from operations; "a fact (he says,) strikingly illustrated after the battle of Waterloo, when it was found that the wounded who were left in the field, and not taken into hospitals till the fourth and fifth day after the battle, recovered much sooner than those who were immediately attended to." We would suggest, however, whether this circumstance might not be, at least in part, ascribable to the greater leisure and consequent care with which the wounded were treated after the heat and hurry of the conflict had subsided.

We have next a case of tumour successfully removed from the head of a female by Mr. Keate, which in consultation was decided to be of bony growth, and situated between the two tables of the frontal bone, the external table being pushed forward, causing the convex surface of the protuberance; and the internal table depressed, giving rise to the urgent symptoms, which were, headachs, occasional vertigo, dimness of sight, nausea, and tinnitus-aurium. The first step of the operation was that of making a crucial incision through the integuments covering the whole extent of the tumour; the flaps were turned back, and thus the bony covering of the tumour itself was exposed, which appeared very thin and extremely vascular. Mr. Keate intended to have removed the protruding portion by sawing through the whole circumference of its base, close to the general surface of the *os frontis*; but having passed a large metacarpal saw about one-third way, an assistant Surgeon thought he perceived a pulsation as if of the vessels of the *dura mater*. A portion of the bone was, however, detached by the elevator, when a thin transparent membrane was discovered closely lining the bony case; but in completely detaching the small piece of bone, the cyst was ruptured, and its contents (a thin, colourless fluid) escaped. The cavity of the tumour was now examined by the finger, which presented an irregular surface or floor, lined by the above mentioned membrane, and evidently depressed below the usual level of the internal table. There was no orifice discoverable leading to the meninges of the brain. Lint was now applied to the surface of the cavity, and the flaps of the scalp merely laid over the wound. From the day of the operation, the 3d of April, to the 7th of July, we have an account of the several and successive dressings of the wound; the occasional application of pure potass to promote exfoliation; and the constant removal of pieces of bone. On the 10th of September there appeared to be an indication of the original cyst filling up again; and the

tumour, in January of the next year, appeared almost as large as at first. This enlargement had, indeed, been frequent, but temporary; for when it arrived at a certain pitch, the membranes gave way, and the cyst, in consequence, collapsed, after discharging its contents: but on February 10th, it is reported, "the tumour is now increased to a great extent, and protrudes beyond the limits of its former bony covering." After attending to the constitutional symptoms by which the health was restored, the cyst was punctured on the 12th; but as now, under the collapsed cyst, a soft tumour presented itself, caustic was applied, which opened it on the 21st, and "a membranous bag, evidently an hydatid, though unluckily ruptured, has come away with the discharge." On the 5th of December, after the application of various dressings, the caustic, and even the actual cautery, the base of the tumour was again laid bare, through its whole circumference, and the whole prominent bony ring was sawn through, close to the sound and healthy surface of the surrounding bone: the largest diameter of the base thus cut through was four inches and a half; the smallest diameter four inches. Hydatids were found, which had rapidly and inveterately grown. The narrative goes on to state, that on the 5th of April the wound was every where healing, excepting the exposed pieces of bone, which are in process of exfoliating: but on this day the patient was seized with rigors, fainting, palpitations, pain in the chest, &c.; for which twenty ounces of blood were taken away: she continued in a precarious state until the 2d of May, from which period she began to recover, and is now restored to complete health: bits of bone continued to exfoliate for some time.

This case we think highly interesting, and very creditable to the skill of the Surgeon to whose care it was intrusted.

A paper on transfusion of blood follows, by Dr. Blundell. The individual who was the subject of the experiment, was a man who was apparently at the point of death from schirrhous pylorus. "Transfusion alone," it is said, "could give him a chance of life. He was himself willing that the attempt should be made. Even if the operation should fail, it would probably disclose facts that might be of advantage to others. For this purpose, about an inch of the right cephalic vein was laid bare a little above the elbow, and a longitudinal incision, about a line in length, was made with the lancet. Some gentlemen present, undertaking to supply a few ounces of blood, about an ounce and a half was taken by the syringe, and immediately infused into the vein in a gradual stream. This operation was repeated ten times; so that between twelve and fourteen ounces of blood were introduced in this

manner in the course of thirty or forty minutes." The operation did not produce much effect till after the lapse of some hours, when a very salutary change was observable. This state, however, of temporary excitement, was soon followed by exhaustion, and he died about fifty-six hours after the injection, apparently exhausted from inanition.

This renewal of an antiquated experiment does not seem to have proved any thing beyond what was already known as to the effect of transfusion; and we think the trial of it was of questionable propriety, upon a subject whose death was necessarily inevitable from the nature of his complaint.

A case of bronchocele is next related, in which the superior thyroïdal artery was successfully tied by Mr. Coates; and by which the tumour was reduced nearly half: the ligature separated on the ninth day; and the wound was completely healed on the fourteenth.

Of Sir G. Blane's paper on vaccination we have already taken ample notice. Immediately succeeding to this, is an essay by Mr. Shaw, to prove that there is no proper muscular structure in the urethra; and that the notion of *spasmodic* stricture of this part is incorrect. Mr. Shaw contends, that what has been described as muscular fibres immediately under the mucous membrane, is the uninjected vascular texture of the internal spongy body. Mr. Windsor's paper on the excision of the uterus is next in succession; which is followed by one from Dr. Prout, consisting of a description of an urinary calculus, composed of the lithate of ammonia; a concretion which Dr. P. thinks peculiar to children under puberty, giving rise to much derangement, and being characterized by a greenish clay colour, being soluble in water, and yielding ammonia when treated with the fixed caustic alkalies.

An extraordinary case of midwifery is next briefly described, in which Mr. Dunn, the operator, conceived, from the retention of the placenta after delivery, and the appearance of a new membrane, that "a second child was at hand." Having ruptured, however, this membranous bag, upon its presenting at the os externum, a pint of fluid escaped, and nothing was perceptible afterwards but the placenta adhering to the uterus, which was separated, and every thing proceeded as usual.

An interesting paper, by Mr. Chevalier, next appears, on relaxed intestines. Mr. C. justly remarks, that intestinal distention, and its consequences, are most frequently occasioned by inflammation of the peritoneal investments of these organs; and that the interrupted functions of the canal are, in a great measure, produced by the adhesions which form between its convolutions. Over-distention may, however,

take place from mere want of tone; the transverse arch of the colon especially, sometimes becomes so much dilated from relaxation, that tympanites is produced; but a less degree frequently accompanies ascites, and sometimes occasions an apprehension in the mind of the Physician, that there is a much larger quantity of fluid in the abdomen than is actually accumulated. The chief object, however, of this paper, is to call the attention of the Practitioner to "a semi-prolapsus" of the upper into the lower part of the rectum; which, without occasioning any external prolapse, is often productive of very distressing symptoms; and it is especially to be remarked, (says Mr. C.) that this is a common cause of that obstinate and habitual costiveness, under which some persons continually labour. In this state of things, the repeated efforts made for the purpose of expelling the *fœces*, sometimes excite tenesmus, swelling of the hæmorrhoidal veins, and increased secretion of mucus from the inner surface of the intestine: in men, the irritation is often communicated to the prostate gland and neck of the bladder. In cases of this kind, glysters are to be employed, first of a purgative and afterwards of a tonic nature, as infusion of galls, or a strong decoction of oak bark, care being at the same time taken that the upper part of the intestinal tube may be excited to due action, regularly, but not violently. The consequences of neglect or ill treatment may be stricture, inflammation, schirrus, and cancer.

The last communication in this series, is from Mr. Earle, in which he describes, as an occasional source of deafness, a dense state of the cuticle, spread upon the meatus auditorius: this dense cuticle Mr. E. removed, in one instance, by injecting a strong solution of nitrate of silver; and the hearing was in consequence restored. Mr. E. further alludes to a leprous, scaly condition of the meatus, as being occasionally the cause of deafness.

We have not much to add under this miscellaneous division of our review. Dr. Scudamore has published a new and much enlarged edition of his elaborate work on gout and rheumatism*, which, although swollen out, we had almost said into a dropsical bulk, contains in its pages some very sound pathology, and good practical matter. We were pleased to meet with the following cautions in reference to practical indications; convinced as we feel, that the Parryean principles of vascular impetus, and the Abernethyan notions of digestive derangements, have taken too firm a hold upon the winds of medical speculatists and prescribers.

* A Treatise on the Nature and Cure of Gout and Rheumatism, &c. By Charles Scudamore, M.D., &c.

" In considering the question of the particular viscus, which has been the primary seat of the complaint, when a complicated case of disorder, affecting the digestive organs and the nervous system, comes before us, I am induced to believe, that sometimes we too much overlook the influence of the brain, and may fail in our treatment from confining our attention to the remote effects of diseases."

And again : —

" It must be our care to discriminate between the nervous symptoms which arise from opposite causes; headach, vertigo, tinnitus aurium, pulsation, and a want of mental energy, may proceed either from an excess or a deficiency of blood in the vessels of the brain; and depletion or stimulus must form our consequent principle of practice."

It is really an indication of courage in the present day to announce the possibility of " pulsation and a want of mental energy " being at all connected in the way of concomitant or cause with a *deficiency* of blood in the vessels of the brain. Although, to our old fashioned conceptions, the doctrine rests upon the most solid foundation.

The " Letters " of Dr. Wilson on disorder of the chest*, have too much the air of an advertisement to entitle them to very respectful attention : their matter is likewise meagre.

Mr. Davis, in his inquiry into the causes of the frequency of death, consequent upon disease†, attributes it principally to want of timely application to qualified sources; and complains, not without some reason, that the abilities and acquirements of the educated and regular Practitioners of pharmacy, are, in the present day, not duly appreciated. But this is a topic on which it is obvious we cannot well enlarge without creating suspicions as to motives and objects: all that we shall permit ourselves to say in reference to this particular, is, that the mode of remunerating medical time and talent requires much reformation before it can be considered as standing upon a proper footing. As things are now conducted, the respectable Surgeon-Apothecary has much to complain of.

Dr. Carter might, we think, have made a more interesting volume than that which he has issued on the foreign hospitals‡. It cannot, however, be denied, that the book con-

* Letters illustrating the Diversity in Cause and respective Importance of Disorders in the Chest, &c. By J. Wilson, M.D.

† An Inquiry into the Causes of the Frequency of Death, &c. By G. H. Davis.

‡ A short Account of some of the Principal Foreign Hospitals, &c. By H. W. Carter, M.D., &c.

tains information which may prove serviceable to those who are desirous of obtaining information on the subject upon which it treats.

The two last works which fall before us for notice, are those of M. La Beaume; the one on the properties of the air-pump vapour bath, in gout, rheumatism, palsy, &c.*; the other on electricity and galvanism, in several disorders of a chronic nature†. We have always been of opinion, that, in reference to medicinal expedients which are in some measure out of the ordinary routine of things, there is too much tendency, both among the Profession and the Public, to extremes of opinion: some lauding them vastly beyond their merits; others idly treating them with sceptical indifference, on the ground of their being disreputable innovations upon accredited courses of remedial treatment. It is, we think, sufficiently made out, that maladies are occasionally influenced by measures of an extraordinary nature; and, both as it respects the vapour bath, and the various degrees and modifications of electricity, testimony is too forcible in favour of their frequent utility to admit of rational doubt. Against every species of quackery, it is to be hoped, we shall ever be found the foremost in the ranks of oppositionists; but we do not subscribe to the position, that all who are not absolutely with us, must necessarily be against us. M. La Beaume's professions are widely different from that of the nostrum monger: he lays claim to nothing beyond the tact which experience and practice cannot fail to give to an operator who confines his manipulations within narrow bounds; and if we admit that his representations of effects may be a little high-coloured, we must at the same time recollect the caution which it is necessary to exercise in receiving accounts of cures, even from the regular Practitioner, especially when he may conceive a partiality for particular remedies.

Surgical Essays. By ASTLEY COOPER, F.R.S., Surgeon to Guy's Hospital; and BENJAMIN TRAVERS, F.R.S., Surgeon to St. Thomas's Hospital. Part II. London, 1819. 8vo. pp. 239. 10s. 6d.

THE surgical members of our Profession will hail with delight the appearance of another volume, containing the practice and opinions of Mr. Cooper. His are productions

* Observations on the Air-Pump Vapour Bath, &c. By M. La Beaume.

† Remarks on the History and Philosophy, and particularly on the Medical Effects of Electricity, Galvanism, &c. By M. La Beaume.

which will ever elude the sphere of criticism; and it is imposed on us not to sit thereon in magisterial censorship, but to announce their publication, or promulgate their more essential parts, in quarters which, perhaps, the originals might not reach. And it is the independent complexion of his self-formed sentiments, and wide experience, which will save us the necessity of any attempt at surgical erudition; of any historical statements of the ancient treatment of particular diseases; of any comparison of his modes with those of preceding masters of the art. It is enough that it is the practice of Astley Cooper, based upon dissections, experience, observation, and success. Not that we are here demanding for it a deference, which some may pay with reluctance, and others refuse altogether; we simply chime in with the general feelings of British Practitioners, who have long consented to consider the practice of Mr. Cooper as an illustration of the utmost advance of practical surgery.

This volume contains no contribution by Mr. Travers; and three essays form its contents. "Essay I. On Dislocations continued, and on Fractures of the Hip and Knee-Joint. Essay II. On unnatural Apertures in the Urethra. Essay III. On the Encysted Tumours." In the first essay are noticed eleven cases of dislocated hip, which have reached the knowledge of the author, since the publication of Part I. "Seven were dislocated upon the dorsum ilii; three in the ischiatic notch; and one in the foramen ovale." After this last-named accident, on the following day the thigh was useless; the knee was raised, and could not be brought into a straight line with the other, having, too, a direction outwards. The bone was not reduced, and in ten months, when Mr. Cooper first saw the patient, these were the symptoms: the injured thigh longest by the length of the patella; the knee advanced; *recumbent*, the leg could not be drawn down to the same length with the sound; the hollow of the groin on the injured side deepest; *erect*, the toes rather everted, resting on the ground, though the heel could not; the head of the bone not to be felt; trochanter much less prominent; *sitting*, the injured leg two inches longest; and to that degree the knee projecting beyond the sound. No extension of thigh, further than to bring the ham to the plane of the other patella practicable. The knees could not be brought together; and the attempt to sit on horseback, produced excessive suffering.

Of the three cases of luxation into the notch, two were furnished by provincial Surgeons: in one of these there was no alteration in the length of the limb; the other, and Mr. Cooper's own case, were attended with but little shortening. This non-elongation of the limb demands great attention;

and it seems that every author, except Mr. Cooper, has asserted the contrary.

One of these ischiatic luxations occurred on the 24th of June, and was reduced on the 3d of August; yet it is stated, that this was effected "the tenth day from the accident;" whereas forty days must have elapsed. In all these three *species* of luxation, the knee and foot are turned inwards; but in that of the oval foramen, the injured limb is much in advance, and the knees cannot be brought into the same plane. Here, too, great elongation of the limb is diagnostic from the ischiatic luxation; and that error which authors committed, who failed to notice this, "must have arisen from their having examined a pelvis separate from the skeleton, and observed that the ischiatic notch was below the level of the acetabulum, when the pelvis was horizontal; although it is above the acetabulum in the natural oblique position of the pelvis, at least as regards the horizontal axis of the two cavities." In the analysis of the first volume of these essays, it was stated that Mr. Cooper did not 'deny the possibility of a dislocation downwards and backwards, although he doubts its having ever occurred.' But in this work we find him boldly affirming, "there is no such accident as a dislocation of the hip downwards and backwards." After all, we see no necessity for the introduction of these fresh eleven cases; enough of illustrations of Mr. Cooper's practice had been previously adduced, to secure both acquiescence and approbation. However, two of them were detailed to exhibit the wretched consequences of non-reduction. One is a case of luxation on the dorsum ilii; the other, already noticed, into the foramen ovale. The *dorsal* luxation occurred to a man who had reached his sixty-second year; and when, after a lapse of nine years, the author inspected him, he was still enduring most frightful inconveniences. "The limb is three inches and a half shorter than the other, and the patient is obliged to wear a shoe having an additional sole of three inches on that side, which lessens, though it does not prevent, his halt in walking; when he stands, the foot of the injured limb rests upon the other; the toes are turned inwards, and the knee, which is advanced upon the other, is also inverted, and rests upon the side of the patella of the sound limb, and upon the vastus internus; it is also bent, and cannot be completely extended." The thigh very much wasted; but the semitendinosus, semi-membranosus, and biceps, forming a rounded projection behind; the trochanter major seven-eighths of an inch nearer to the spine of the ilium, projecting behind visibly and much; the site of the head of the bone on the dorsum ilii easily perceived, especially upon inward rotation.

Sitting, the foot very inverted, the knee placed behind the other, the toe only reaching the ground. *Fatigued*, pain in the opposite hip, and in the luxated thigh. Vast difficulty to stoop. "He can now stand for a few seconds upon the dislocated limb; but it was twelve months before he could do so. When in bed it is painful to him to lie on the injured side. His hip is, without any apparent cause, much weaker at some times than at others. When sitting down to evacuate his fæces, he is obliged to support himself by resting the injured knee against the tendo achillis of the other leg, placing his right hand on the ground. He now walks with two sticks." "He cannot get over a stile when the steps are far apart; and he is frequently obliged either to turn back, or to take a circuitous rout." He sometimes falls in walking, and the least push throws him down.

It is to be hoped that narratives like these will have their proper influence on all who peruse them. Surgery, like other arts and sciences, has its impassable boundaries; but well does it behove every man, who is not reckless of the weal or woe of his fellow-creatures, nor insensible of the great duties of his existence, to be truly solicitous, lest the barriers raised to his professional success, be his own criminal indolence or stupidity, and not the essential limitations of human power.

When in a younger subject a dislocated bone is not reduced, the powers of nature, more plastic and more accommodating, mitigate the inconveniences of failure. The following case we saw very recently:—A young gentleman, at the age of five years, was kneeling on a chair, badly supported. He fell backwards to the ground, dragging the chair upon him. He cried out from pain, was carried to bed, and found to be paralyzed in his left lower extremity, and in the sphincters of his bladder and rectum. An injury of the spine was alone suspected. The palsy of the sphincters remained some years; that of the limb was previously removed. Ten years had elapsed when we examined him. The limb is shortest by more than three inches. The knee turns in upon the vastus internus, above the patella of the opposite, and has actually hollowed a sort of socket in the soft parts; the foot is inverted; the toe only reaches the ground: at first the foot was inverted over the other; but now the leg diverges from the knee, to widen his basis of support in standing; the thigh is wasted; an unusual prominence of trochanter, and the head of the bone felt playing on the dorsum ilii, authorized us to pronounce decisively on his misfortune. He limps much; is fatigued by a walk of two miles; cannot, when erect, advance his limb to an angle, with the body of forty-five

degrees; nor throw it back to the extent, trivial as it is, which a sound joint will allow; nor evert his foot; nor abduct the thigh; but he never suffers pain in the joint, whatever movements, wider than ordinary, he endeavours to effect; he can stoop well, and with alacrity; can throw his leg over the sound thigh easily; and can ride on a poney, without pain or weariness, provided he use a *high stirrup*. At first he could not bestride without great difficulty; but he has now ridden about two years; and the sphere of motion of the limb has been augmented by that exercise. We saw no protuberance of the spine.

"The fracture of the neck of the thigh-bone is of two kinds: first, that in which the bone is broken transversely through the cervix within the capsular ligament; and, secondly, when it is fractured externally to the ligament, either through the root of the cervix, or through the trochanter major." Of the internal fracture, this is the diagnosis: the leg from one to two inches shorter; the retraction *easily removed* by drawing down the limb; but this extension removed, the muscles quickly again retracting it: "this evidence of the accident continues until the muscles acquire a fixed contraction;" foot and knee turned outwards by the strong rotatory muscles; a contrast with the upward luxation will be readily recognised; "yet three or four hours must elapse before this appearance (of retraction and eversion) is in its most decisive state, as the muscles require some time to retract, and this is the reason that the accident has been mistaken for dislocation." Attempt at rotation painful, especially inwards; flexion outwards effected with little suffering; inwards, productive of very severe; less projection of trochanter, which, with the other appearances, is particularly marked, if the patient be erect; crepitus, if the limb be first extended to its natural length. It is an accident of advanced age, commonly occurring after the fiftieth year, while luxation seldom happens later than that period; and it is easily produced in the fragile bones of old persons, by so slight a movement as even a slip from the curb-stone to the pavement. The author decidedly believes that this internal fracture is never cured by bony union; hence he deprecates an attempt to effect it, and confines his patient no longer than to subdue the inflammatory tendency which such an accident must at first create. Yet, if there be doubts whether the fracture is within or without the capsule, let the case be treated as one of the latter species. But what is the symptomatic distinction of one from the other? *First*; the *external* fracture mostly occurs in earlier life, under the fiftieth year. *Secondly*; the causes are usually more severe. *Thirdly*; there is almost always

crepitus, without drawing down the limb. *Fourthly*; the trochanter is drawn before the head of the bone, nearer the spine of the ilium; and it forms a distinct prominence in the fossa of the groin when the patient sits. The pain is greater; the limb is less shortened, generally by more than an inch; and rotation is more extensive, "because there is no cervix remaining attached to the shaft of the bone." This fracture can be cured by union, and thus it must be treated: "the patient is to be placed on a mattress on his back; the thigh is to be brought over a double inclined plane, composed of three boards, one below, which is to reach from the tuberosity of the ischium to the patient's heel, and the two others above have a joint in the middle, by which the knee may be raised or depressed; a few holes should be made in the board, admitting a peg, which prevents any change in the elevation of the limb but that which the Surgeon directs; over these a pillow is thrown. When the limb has been thus extended, a long splint is to be placed upon the outer side of the thigh, to reach above the trochanter major; and to the upper part of this is fixed a strong leather strap, which buckles around the pelvis, so as to press the one portion of bone upon the other; and the lower part of the splint is to be fixed with a strap around the knee to prevent its position being moved. The limb must be kept as steady as possible for eight weeks, at the end of which time the patient may be permitted to rise from his bed, if the attempt does not give him much pain:" he wears the outer splint and pelvic strap a fortnight longer, and recovers a very good use of his limb. We come now to "*fractures below the trochanter.*" Which of us, that have been dressers at an hospital, but would rather have had any case than a fractured thigh brought in during his week, solicitous of his own credit, and almost always witnessing more or less deformity from that ugly accident? Of these clumsy cures, if cures they are, the reason and prevention are concisely stated by our author. Suppose a thigh-bone broken just below the trochanters. The upper portion is drawn forwards and upwards, to nearly a right angle with the lower, by the iliacus internus and psoas muscles, aided, perhaps, by the pectinalis and first head of the triceps. "To prevent this horrid distortion and imperfect union, two principles are required to be strictly observed: the one is to elevate the knee very much over the double inclined plane; and the other, to place the patient in a *sitting* position, well supporting him by pillows." — "When, by this posture, the extremities of the bones are brought into *proper* opposition, and all projection of its upper portion is removed, either the splints may be applied,

which are commonly used in fracture of the thigh-bone; or, what is better, a strong leather belt, lined with some soft material, should, by means of several straps, be buckled around the limb." The muscular relaxation effected by *sitting*, must be maintained throughout the period of cure.

Dislocation of the patella, laterally, is not always remedied so easily as is generally imagined. Mr. George Young encountered great difficulty of reduction in a certain case; but "he placed the patient's ankle upon his shoulder, and thus most completely *extended* the limb, and obtained a fixed point of resistance at the knee. Then, grasping the patella with the fingers of his right hand, he pressed the outer edge of the patella with the ball of his left thumb, and pushed it into its place."

A *patella* cannot be *luxated upward*, unless its ligament be ruptured. Such an accident requires the following *treatment*: local depletion, and evaporating lotions from four to seven days; then a roller round the foot and leg; the leg to be extended upon a splint behind the knee; "and a bandage, composed of a leather strap, is to be buckled around the lower part of the thigh: to this is to be attached another, which is to be carried on each side of the leg and under the foot, and is to be buckled to the circular strap; thus the bone is gradually drawn down, so as to allow of an union of the ligament. In a month, the knee may be slightly bent, and as much passive motion daily given as the patient is able to bear; by these means, the ruptured ligament becomes united, and the patella retains its motion. With very great attention, this becomes perfect."

Dislocation of the tibia at the knee-joint occurs four ways: the two lateral are incomplete; the backwards and forwards are perfect luxations. In the luxation inwards, "the condyle of the os femoris rests upon the external semilunar cartilage, and the tibia projects much on the inner side." "The tibia is now and then thrown upon the outer side of the knee-joint, the condyle of the os femoris being placed in the situation of the inner semilunar cartilage, or rather behind it, when an equal deformity is produced, as in the other dislocation. It seems to me, that in both these dislocations, the tibia is rather twisted upon the os femoris, so that the condyle of the os femoris, with respect to the tibia, is thrown somewhat backwards, as well as outwards or inwards."—p. 61.

The luxations forwards and backwards are complete. The reduction of these and of the former is very simple; and the after treatment must be as rigorously antiphlogistic as accidents to such important parts may well be deemed to require.

Dr. Walshman treated a case wherein "the head of the tibia was completely dislocated backwards, reaching behind the condyles of the femur into the ham;" yet, upon reduction, the limb lay motionless and free from pain for a fortnight, when passive motion was commenced; in a month, the patient was on crutches; in ten weeks, sitting at table with his family. It is marvellous, that, after the complete luxations of so big a joint, patients regain a perfect use of the limb; and these are mighty instances of the reparatory powers of nature.

The author has not found the plan of reduction which Mr. Hey invented in the *luxation of the semilunar cartilages* themselves, (which accident, indeed, Hey first detected,) invariably successful; some cases being quite remediless.

He has met with one, and only one, case of *compound dislocation of the knee-joint*. There was a large opening in the integuments, through which the external condyle projected, so as to be opposite the edges of the skin. The os femoris was thrown behind the tibia on its outer side, but not so much on the inner, so that the outer condyle was luxated backwards and outwards, the axis of the femur twisted, and the inner condyle advanced upon the head of the tibia. Reduction could only be effected with extreme difficulty; and the bone, directly the extension was removed, slipped into its former situation. These circumstances, the joint being freely opened, and an extremely irritable constitution, decided the author to amputate. "It is probable, that all compound dislocations of the knee-joint will require a similar practice, unless the wound be so extremely small as to admit readily of its immediate closure."

Dislocation of the knee from ulceration of the cartilages and ligaments, which serve to compose the joint, is effected by the irritated muscles. In one case, of which a plate is given, "the leg was placed forwards at right angles with the thigh;" the patella ankylosed to the os femoris, and the tibia joined by ossific union to the fore part of the condyles. "This state of parts may be prevented by opposing the action of the muscles when their irritability first begins to produce distortion, by the application of splints, and by the exhibition of opium." Thus I have seen, in cases of ulceration of the hip-joint, the irritative action of the flexor muscles diminished, and the distortion prevented by drawing down the limb, and keeping it in the extended position; but it is a most painful extension to the patient, and should be very gradually accomplished."—p. 73.

Fractures of the patella are marked by different degrees of separation of the broken portions: in the *transverse fracture*

the author has seen an intervening space of five inches. In this species of fracture the union of the fragments is effected by ligament; for there is never produced by the Surgeon an approximation sufficient for osseous union. In the *longitudinal fracture* opposition can be maintained, and bony union result. The Surgeon, therefore, although he cannot dispense with ligamentous attachment in the transverse fracture, must yet attempt to make the bond as short as possible. He places his patient on a mattress, extends the limb on a well-padded hollow splint behind the thigh and leg, and orders an evaporating lotion. "The body should be slightly raised in bed, to *relax the rectus muscle*, and the heel should be raised, to bring up the lower portion of the patella." Until tension has subsided, bandages should *by no means* be applied. Then, a leather strap is buckled round the thigh above the elevated portion of the bone, and from this another strap is passed under the foot, raised as much as possible. This strap is carried upon the opposite side of the leg, and buckled to the circular leather.

After five weeks for the adult, and six for the aged, a slight passive motion must be, with *great circumspection*, given to the joint: let it be daily and proportionally increased; and let it be thus managed: "the patient is placed on a high seat, and directed to swing the leg, by which motion is given to the rectus; and if the mind be directed to the contraction of that muscle, its powers will be gradually renewed." This is a precept of vast importance; and it must be observed with an exactitude and perseverance proportioned to the length of the uniting ligament. If it be disobeyed, lameness is unavoidable; for the rectus "does not seem disposed to recover its voluntary action, until it becomes again elongated" by bending the knee.

Some years back, a pamphlet was published by Professor Sheldon on the fractured patella: by him great stress was laid on the principle of relaxing the rectus, to whose tendinous extremity the upper fragment is attached; if, therefore, the patient is prompted, from weariness, to shift his posture in the bed, still let him never adopt one in which that muscle is stretched; and this must take place, unless an angle be constantly formed by the thigh with the pelvis, whence one head of the rectus originates.

Sheldon's is an ingenious essay, well worthy perusal; and we regret that it is now out of print.

Of five patients who suffered *compound fracture of the patella*, three perished, and the others narrowly escaped; so acute was the constitutional irritation. Of the fatal cases, one was remarkable: a woman fractured her patella; an ulcer

formed on the knee; it was sloughy, "extended through the new (uniting) ligament to the joint, which it laid open," and destroyed her.

Oblique fractures of the femoral condyles into the joint are known by great swelling, crepitus on motion of the joint, "and by the deformity with which they are attended." But what is this deformity? In these accidents, whichever be the broken condyle, Mr. Cooper enjoins for the limb a straight position, "because the tibia presses the extremity of the broken condyle into a line with that which is not injured." The splint behind the knee should be pasteboard applied wet; which will thus be best accommodated and moulded to the limb.

Compound fracture of a whole external condyle occurred to a patient of Mr. Travers; it did not unite to the body of the bone, and was removed by forceps in about two months. The boy was walking well and unsupported in five months!

Fractures of the femur just above the condyles require a knee bent over the double inclined plane, "to constantly extend the condyles in a line with the shaft of the bone, and a roller is to be applied around the lower parts of the thigh bone."

Oblique fractures of the tibia into the knee-joint should be treated, like those of the femoral condyles, by a straight position, a roller, the pasteboard splint, and *early passive motion*.

Oblique fractures of the tibia below the knee-joint require the use of the double inclined plane.

The head of the fibula may be luxated through violence or relaxation. When, in the latter, reduction has been effected, blistering is demanded to promote absorption of superabundant synovia distending the capsule, and a strap to encircle the leg at that part. This brings us to the most original portion of this volume; the remarks on dislocations, simple and compound, of the ankle-joint. These are accidents which, we know, have much interested Mr. Cooper; and he has brought his powerful and observant mind to their contemplation not in vain.

Simple dislocation of the tibia inwards is marked by so forcible a projection "against the integuments as to threaten their bursting. The foot is thrown outwards, and its inner edge rests upon the ground; about three inches above the outer ankle there is a deep depression."—*Dissection* discovers the end of the tibia resting on the inner side of the astragalus, not on its articulatory surface; and if the accident has occurred through jumping from a great height, the lower

end of the tibia, connected with the fibula by ligament, is split off, remaining with the fibula, "which is broken from two to three inches above the joint; and the broken end of the fibula is carried down upon the astragalus, occupying the natural situation of the tibia;" the malleolus externus, with two inches of fibula, and the fragment of tibia, retaining their places. For *reduction*, let the patient rest on the injured side, and bend the leg at right angles with the thigh, to relax the gastrocnemius; let an assistant grasp the foot, and draw it into a line with the leg; let the Surgeon fix the thigh, and force the tibia upon the articular surface of the astragalus. The limb should lie on its outside, the many-tailed bandage be applied, and the outer splint have a foot-piece.

The simple dislocation of the tibia forwards involves fracture of the fibula about three inches above the joint. The fractured end advances with the tibia; its malleolus remains unmoved. Let the reduced foot rest upon the heel, and the splints have foot-pieces.

The partial dislocation of the tibia forwards may elude cursory observation; for "the foot appears but little shortened, nor is there any considerable projection of the heel." "The foot is pointed downwards, and a difficulty is experienced in the attempt to put it flat on the ground: the heel is drawn up, and the foot is in a great degree immoveable." A dissection of such a limb showed that the articular surface was divided; the anterior part seated on the os naviculare; the posterior on the astragalus: both had been smoothed by friction. The fibula was found fractured. In such accidents the author exhorts us not to rest satisfied until the foot be returned into its natural position.

The simple dislocation of the tibia outwards throws the foot inwards, and its outer edge rests upon the ground. The malleolus externus projects very much, and *decides* the character of the accident. The foot and toes point downwards. *Dissection* teaches us that the malleolus internus is obliquely fractured, and separated from the shaft; the fractured portion sometimes consists only of malleolus; "at others the fracture passes obliquely through the articular surface of the tibia, which is thrown forwards and outwards upon the astragalus, before the malleolus externus. The astragalus is sometimes fractured, and the lower extremity of the fibula is broken into several splinters." "The capsular ligament is on its outer part torn; the three fibular tarsal ligaments remain whole in most cases, but when the fibula is not broken, they are ruptured." Let the reduced foot rest on its outer side on a foot-pieced splint, and let a

pad be placed above the outer ankle, both to prevent the tibia and fibula slipping from the astragalus, and to lessen the pressure of the ankle on the integuments.

The compound dislocation of the ankle-joint takes place in the same direction as the simple, and the bones and ligaments suffer in the same manner. The only difference is, that in the first the joint is laid open, and the ends of the bone protrude. The bones being replaced, the local effects of this accident are the following. Synovia escapes, and in a very few hours inflammation begins; the ligaments as well as the ends of the bones are inflamed. In about five days commences suppuration, whereby the cartilages, partially in general, but sometimes wholly, become absorbed. This process is slow, irritates the system severely, and ends at times in exfoliation of bone. When they are wholly absorbed, granulations fill up the cavity between the extremities of the bones. Sometimes adhesion at one part prevents absorption of cartilage, while granulations are formed at another. Sometimes, "after inflammation in joints, the cartilages remain, and their surfaces adhere." But neither granulations nor adhesion need induce ankylosis, provided passive motion be instituted in due time: and as to the ends of the bone, "when they are joined by ossific union," it is in the usual manner. The *constitutional effects* are, after one, two, or three days, pain in the back and head, a furred tongue, white, yellow, or dark brown; anorexia; nausea, or vomiting; costiveness; a hot, dry skin; high-coloured, diminished urine; a *hard*, quick pulse; quick breathing; restlessness, watchings, delirium, subsultus; and, perhaps, tetanus. The *wound* is the cause of all these violent symptoms; the wound, then, must be closed as completely as possible, "to assist nature in the adhesive process," and "to render suppuration and granulation less necessary for the union of the opened joint."

"*Is amputation generally necessary in compound dislocations of the ankle?*" My answer is, certainly not; thirty years ago it was the usual practice to amputate "by some of our best Surgeons, but of late years a great majority of limbs has been saved. In by far the greater number of these accidents amputation is unnecessary."

Such is the counsel of Mr. Cooper; and he adduces to its propriety the testimony of a large number of Surgeons, eminent in private some, and others in official practice.

Sometimes the anterior tibial artery is wounded; and that, of course, must be secured. The protruding bone, ere it be reduced, must be washed of all dirt, or suppuration will result, from the entrance into the joint of extraneous matter.

Detached pieces of shattered bone must be removed by the finger most gently: to this purpose, if needful, the wound of integuments may be enlarged by the scalpel, as it may, likewise, if the integuments be nipped into the joint. The bone reduced, lint wet with blood forms the best covering to the wound. Many unconnected tails of bandage should be used, "so that any one piece may be removed when it becomes stiff; and by fixing another to its end, it can always be applied fresh, without any disturbance to the limb." In the luxation inwards, the leg should rest on its outer side; in the luxation outwards, upon the heel. The knee should be slightly bent, *the foot carefully prevented pointing*, and the splint contain an aperture opposite the wound.

Let blood-letting be regulated by the remembrance of the great trial the systemic powers have to undergo. Let purgatives be administered with religious caution; for they disturb adhesion, and the author has known them to be fatal. These, and blood-letting, if to be employed, "should be effected at the first hour of the accident, before the adhesive inflammation arises; after which the liquor ammoniæ acetatis and tinctura opii form the patient's best medicine, with a slight aperient at intervals." If there be much local pain, "in four or five days the bandage may be raised, to examine the wound; and if there be much inflammation, a corner of the lint should be lifted from the wound, to give vent to any matter," but with great circumspection. Thus, perhaps, the wound may be closed by adhesion; but if in a few days it be not, the matter should escape, the lint be removed, and simple dressings applied. "After a week or ten days, if there be suppuration, with much surrounding inflammation, poultices should be applied upon the wound, leeches in its neighbourhood, and upon the limb, at a distance, the evaporating lotion; but as soon as the inflammation is lessened, the poultices should be discontinued."

Of the practice advocated above, cases and letters are adduced in confirmation; and the medical world will estimate the credit and imitation which they challenge, when it perceives among the contributors the names of Chandler, of St. Thomas's Hospital; Somerville, of the Stafford Infirmary; Chandler, of the Canterbury; Hammick, of the R. N. Hospital at Plymouth; Smith, of the Bristol, and Wickham, of the Winchester, Infirmaries. Another mode of treatment, whereby the limb is preserved, and sometimes recovers its pristine powers, is stated by Mr. Cooper, in terms which show, we fancy, some degree of partiality to its frequent adoption. It is to saw off the protruding bone previous to reduction; and it boasts the following recommendations:—

1st. Sometimes difficulty of reduction of an unsawed bone, but with violence. 2dly. Oblique fracture, forbidding the bone to *remain*, if reduced. 3dly. Muscular spasms diminished by the decurtation. 4thly. Greater facility of adhesion. 5thly. Diminished suppuration. 6thly. Less irritative fever. 7thly. The fact that the three last-named benefits and a quicker cure have resulted, where comminuted pieces have been detached. 8thly. No case of death after such treatment, in the knowledge of the author. The objections are—the shortening, and ankylosis. The author slights the first, and denies the necessity of the latter. But, after all, to which mode shall an unpractised Surgeon give the preference? If reduction be easy; if the bone “be not so obliquely broken, but that it remains firmly placed upon the astragalus when reduced; if the end of the bone be not shattered, for then the small loose pieces of bone should be removed, and the surface of the bone be smoothed by the saw; if the patient be not excessively irritable, so as to occasion” spasms, leading to subsequent displacement; why then return the bones into their places, but rather than amputate, saw off the ends. However, amputation is sometimes necessitated by circumstances; such as *the advanced age of the patient, especially in London hospitals; a very extensive lacerated wound; extreme comminution, with extensive oblique fracture of the tibia; fracture of tibia and tarsal bones, as astragalus and calcis.* Sometimes the reduced bone will not remain, from the tibia in the luxation outwards being obliquely broken, and only a small portion of the articulating surface remaining on the dislocated extremity. This was before mentioned, as an argument for the saw alone; but such a case is adduced, wherein amputation was performed by our author. Other circumstances *may be*—“division of a large blood vessel, with an extensive wound of the integuments;” mortification of the foot; excessive contusion; extensive suppuration; exfoliations of bone; excessive deformity of the foot. Acute tetanus will not justify amputation; and a chronic species, Mr. Cooper knows, will get well without it, or by the aid of calomel and opium. Lastly, a *very irritable* constitution may require the removal of the limb.

A *dislocated astragalus* is very difficultly reduced. Mr. Cooper witnessed a failure in the hands of a most intelligent man. The bone projected on the upper and outer part of the foot; the toes turned inwards, and pointed downwards.

In a *compound dislocation*, Mr. Trye removed the astragalus with success.

The five *anterior tarsal bones* may be *luxated* from the os

calcis and astragalus : the appearance is that of *club foot*; the reduction obvious.

A man received a blow on the heel from a huge stone; and the following remarkable effects resulted. A wound across the instep, exposing the articulating surface of the astragalus with the navicular bone before, that for the os calcis outside, from both which bones it was displaced, but not from the tibia nor fibula; the tuberosity of the os calcis projected outwards; the foot and toes turned inwards. Reduction was effected by extending the foot and rotating it outwards; but the most tremendous constitutional irritation supervened: nor was the patient dismissed from the hospital in less than six months.

Another patient luxated the astragalus inwards; the os calcis and rest of the foot being thrown outwards. Reduction was easily effected.

Luxation of the os cuneiforme internum concludes this essay, and requires no particular notice.

The second is entitled—"Of *unnatural apertures in the urethra*;" and its objects will be best developed by reciting what is needful of the cases adduced. There are urinary fistulæ whose obstinacy resists the common treatment.

A gentleman had an abscess on the anterior and lateral part of the rectum, which had discharged itself into the rectum just above the verge. A Surgeon divided the sinus, but the wound did not heal; and the patient observed, that after making water the urine passed through the aperture. Mr. Cooper discovered obstruction at the apex of the prostate, and tried bougies, and a large catheter, and recumbent posture; but the fistula remained; and when the patient rose, the urine re-appeared upon removal of the tube. Mr. Cooper tells us that, after a time, he thus operated:—"I introduced a catheter into his bladder, and my finger into the rectum; and then made an incision, as in the operation for the stone, in the left side of the rapha, (raphe) until I felt the staff through the bulb. I then directed a double-edged knife across the perinæum, between the prostrate (prostate) gland and rectum, intending thus to divide the fistulous communication between the urethra and the bowels (bowel). A piece of lint was introduced into the wound, and a poultice was applied over it. When the lint was removed, the urine was found to take its course through the opening in perinæo; the aperture in the rectum gradually healed, and that of the perinæum quickly closed, after which the urine took entirely its natural course." During the cure a testicle became inflamed, from sympathy, perhaps, with an irritated vas deferens, or vesicula seminalis.

“Apertures are sometimes formed in the urethra, from a process of *ulceration* beginning in a bad constitution, without their being accompanied with stricture.”

A nobleman had an urethral abscess, and copious discharge from the urethra; his constitution much enfeebled previously, and suffering much from this local irritation. No stricture was found. The abscess burst in perinæo, but matter still flowed per urethram. Poultices were continued, alteratives and tonics administered; his system was invigorated, and his local symptoms totally removed.

A gentleman of excellent morals, who had never exposed himself to a chance of venereal infection, had an urethral discharge, at first gleet, afterwards purulent, without pain or difficulty in making water. Yet a bougie was used, which increased the irritation and discharge, and injured his health. An abscess formed and burst within the scrotum, and urine passed through the aperture in the scrotum. The bougie was used again; another abscess formed in perinæo, into which and the scrotum urine was extravasated. A free opening was made, but sloughing and irritation destroyed the patient. After death “two ulcers were found in the urethra, without any appearance of stricture.”

Was not this fatality ascribable to the use of bougies instead of constitutional remedies?

Apertures in the urethra, with much loss of substance, are thought by some Surgeons incurable. Seated mostly anterior to the scrotum, from half an inch to an inch in length, involving one-third or half of the urethra, and the lower part of the corpus spongiosum, a part or the whole of the urine and semen passes through them.

The urethra of a gentleman sloughed at the junction of the scrotum with the penis, and a large fistulous orifice was the result. Bougies, blisters, and paring the edges of the fistula previous to the use of pins and the twisted suture, were tried without efficacy. Mr. Cooper himself tried simple suture, with a like result. “But,” says he, “seeing that the scrotum formed two-thirds of the opening, and the skin of the penis the other one-third, I thought that it might be possible to heal it upon the principle of the contraction of the skin in cicatrization. In June, 1818, I applied the nitrous acid upon the edge of the fistulous orifice, and upon the skin, to the extent of three quarters of an inch around it; the skin sloughed superficially, formed granulations, and healed. It soon afterwards began to contract. In October I again applied the acid, and with increased effect. At the end of November the application was repeated by himself; and the opening, from the size of a pea, was reduced to that of a

pin. On January the 22d, 1819, it was again touched, but very lightly. In March the caustic was last applied, and in a fortnight the orifice was closed."

"But still it is only in cases in which the skin is very loose, or the scrotum is forming a part of the fistulous orifice, that this plan would succeed."

M. H—— had an abscess opened at the under part of the urethra, immediately anterior to the scrotum: an urinary fistula resulted, and continued to enlarge till it measured half an inch in length, and admitted easily the largest catheter. Nitras argenti was applied, and attempts at adhesion made, in vain. 1818. Dec. 9th, an elastic catheter being passed, Mr. Cooper pared off the callous edges; "a portion of integument was dissected from the scrotum, (leaving it attached at the upper part,) and turned over upon the wound, to which it was exactly fitted; this was held down by four sutures" and adhesive plaster. A small quantity of urine again escaped by the wound on the 12th and 13th; on the 15th, the dressings were removed, and the stitches being firm, fresh were applied; on the 18th, a little urine again escaped by the wound; on the 22d, two sutures ulcerated through; and on the following day the rest were extracted; on the 27th, several hairs were sprouting on the flap of skin. Matter exuded from the orificium urethræ up to the 4th of January, and from the wound an oozing lasted until the second of March; after which period he made water without the catheter, bougies being occasionally introduced. On the 14th of October he was in perfect health; and all that remained of inconvenience from the operation was, that the penis was somewhat drawn down by the contraction of the integument.

The third essay, which is nominally "*on encysted tumours*," is confined to the description and treatment of one species, situated just under the skin, and mostly on the head, or face, or back. It is generally nearly globular, on the head very firm, on the face fluctuating more or less; covered by a skin now and then streaked with vessels; now and then, likewise, containing in the centre a dark spot, more especially in an early stage of the morbid growth; and in general not easily moving over it. Sixteen is the greatest number the author has seen on one head; the largest size that of a common-sized cocoa-nut: the general diameter two inches. Their cysts are thin on the face; thicker on the back; still thicker, nay sometimes elastic, on the head. They contain a lining of cuticle, and several desquamations of the same within it; a curd-like substance, sour or abominably offensive; sometimes hair, sometimes horn. The cysts themselves are occa-

sionally horny. Of the horny excrescences from cysts, Home has published an account in the *Philosophical Transactions* for 1791; and a particular case mentioned in this book may be perused in the article of *horny excrescence* in the *Cyclopædia* of Rees.

This swelling our author believes to originate in obstruction of a follicle, whose sebaceous contents, still increasing, distend its coats; and we think he has ascertained the fact: for follicles are productions from the skin, lined by cuticle, secreting a sebaceous matter, which may be pressed out in the form of worms; and our author squeezed from a tumour on his own person a large quantity of sebaceous matter, through an orifice, from which he had previously picked a piece of this matter, having a black head and resembling a worm. The secretion continues, but he keeps empty the sac by pressure. He has likewise dissected such a tumour, and ascertained a follicle leading into the hollow. Moreover, the sudden diminution of these tumours at times is thus accounted for:—"They open at the follicle, discharge, and lessen; but the follicle becomes again stopped, and the swelling is renewed." Hence, too, the reason why opening them excites no inflammation; "they are naturally external surfaces:" to open is to make their communication with the surface of the skin more free; and the cyst will secrete so long as any part of it remains, just as did the follicle.

The treatment of this sort of tumour depends upon its size and contents. If it be very small and very recent, perhaps the contents may be squeezed through the follicular orifice. If this be impracticable, a stroke of the knife will give space enough for the exit of the sebaceous substance; "and then, by pressing the sides of the skin together, the cysts may be easily everted and removed." Thus tedious dissection, cutting or bursting of the cyst, and the pain of many incisions—evils that attend extirpation of the whole tumour—may be avoided. The forceps or tenaculum easily separates the cyst from the subjacent cellular membrane; and the hair braided approximates the edges of a wound on the scalp.

The tumour at the outer canthus is the most difficult to remove; for it passes within the orbit, and often adheres to its periosteum.

"The removal of cysts is not entirely unattended with danger" of severe erysipelas; and in the case of a lady, to whom it was fatal, it seemed due to cold bathing three days after the operation.

When these cysts "acquire any size, there seems to be

(sometimes?) an attempt made by nature for their removal; the skin inflames over them, and the swelling then becomes painful; ulceration slowly follows, and the curdly substance, mixed with pus, is discharged; the opening sometimes closes, but often remains fistulous."

Of the sterling value of this volume we cannot say too much in praise. We know scarcely any two hundred and forty octavo pages that contain so much of masterly surgery; so much of alleviation for the corporal calamities of mankind. Whether we contemplate the great principles which the author lays down for the treatment of the different accidents and maladies, or the precision of his detail in the effecting of his purposes, we are compelled to admire and to consent. Our analysis of necessity does but sparing justice to the copiousness and minutiae of the original; we have omitted cases for very obvious reasons, and the same have necessitated us to give the author's sense mostly in our own abbreviated style. We recommend the essays to all Practitioners in surgery, most especially to the younger. Yet it is not incorrect to state our belief that their diffusion is not so extensive as it ought to be, for two reasons; of which the first is the idea held by some who have been educated at the Borough hospitals, that the contributions of Mr. Cooper are, in effect, his lectures, and that they already are familiar with their essence. We assure them, ourselves not unacquainted with his oral instruction, that this publication contains matter which that, but a few years ago, did not; that the experience and the science of this great Pathologist are not stationary; and that, were it true that they have already heard what we strongly recommend them here to read, still they can hardly impress too strongly on their minds and memories the reiterated precepts of Astley Cooper.

The second impediment to circulation is the necessary increase of price, which this work undergoes from the association of another's productions to those of Mr. Cooper. It is not insulting to the genius, and enthusiasm, and acquisitions of Mr. Travers, to wish they had been developed in a distinct work.

The opinions and practices of the former carry a weight and authority which renders a knowledge of them, we had high said, indispensable. His able fellow-essayist will not deem it defamation to attribute to him a minor influence; and every philanthropist will lament any measure that tends to narrow the sphere of that vast usefulness which the works of Cooper claim as their prominent characteristic.

There are eight plates in this volume, engraved by Wedge-

wood, from very spirited sketches by that excellent professional artist Mr. H. Thompson; and the *getting up* of the book is, on the whole, not unworthy its author and subjects.

Opinions on the Causes and Effects of Diseases in the Teeth and Gums; with Practical Observations on the Devastating Consequences of their Origin, as ascribable to Lateral Pressure, &c. By CHARLES BEW. Callow. pp. 126.

EVERY body, at least we suppose so, is aware of the utility of these little organs, of "the devastating consequences of their origin," and of their very susceptible and perishing nature. The sense of these important evils induced Mr. Hunter to inquire, with the usual results of his mighty abilities, into their structure and economies; and on the basis of these investigations all the Pathology of teeth has been founded up to the present time, with very little improvement from succeeding physiologists. Mr. Bew, however, for the benefit of the world, appears as the tenth Avater of hope long deferred, irresistibly "induced," he acquaints us, "to offer something like a *rational* refutation of systems, with their attendant train of incongruous absurdities, which, in the minds of *philosophic* or *thinking* men, could never have existed even in imagination."

A few years back the practice of the dentist was resigned to those barbarian operators on mammalia, called farriers, and barber-surgeons; but as the primitive rusticity of our ancestors and their coarse habits and expedients refined into luxury, it became requisite that Apothecaries should extract teeth; and from them it finally fell to the office of persons making it their particular occupation. All this for two very substantial reasons: it required that kind of expertness which every individual does not possess, tritely termed *knack*; secondly, it was inconsistent with the habits of those who cultivated a wider field of art. Now we hear of these specimens of petty employments dignified with pompous titles, as Surgeon-dentists, effulgent with royal donors, noble patronage, and some sort of philosophy.

Mr. Bew is an instance of what is exceedingly common—how discontented a man may be with all the blushing honours of a court thick upon him, till he has made a perilous pilgrimage to offer the *opima* of mind at the shrine of that

"Shy nymph, Philosophy."

Sine te mei honores prosunt me nihil! The selection which Mr. B., as dentist to the Prince Regent, is able to make of

the household of the Pavilion, and of the fair nobility of the state, for the prosecution of improved plans, and the acquisition of elegant experience, has certainly afforded very particular opportunities. We shall not deem it *infra dignitatem* to examine his "opinions and refutations," with the avowed purpose of "establishing, on the broad basis of reason and demonstration, a change of system and operation, for the prevention and relief of diseases incident to the teeth and gums, which have existed almost for ages."

Formation.—We are told, not quite correctly, how teeth "fall into formation," and that *periosteum* is to be seen in clear demonstration by the *bleeding fibres* in the *exterior* of the recently extracted tooth, or the succeeding hæmorrhage from *fracture by percussion*."

Enamel is a "siliceous covering;" not, as we have erroneously supposed, carbonate, phosphate, and fluat of lime*.

The consequences of neglect, and advantages of attention.—Here Mr. Bew exercises the *coup de plume* upon an unfortunate pedagogue, who exhibited in full effect the "consequences of neglect."

"Cases I have witnessed where an obstinate and filthy schoolmaster, pregnant only in pride, particeps, and dirt, rejected assistance, though Nature called loudly for help, merely, forsooth, because, without *pain*, his teeth rolled out of their sockets with an accumulation of calcareous, figuratively resembling the flanneled incubance of the gouty, till the mansion was destitute; and he, in his wisdom, denominated the dentist an excitement to vanity."

This scrupulous personage seems to have been *culpably* pure of that latter vice to which Mr. B. alludes. Every thing in this world is idea: nothing is lovelier to an oriental

"Than the tooth of the fawn like gold."

Nor, perhaps, could any thing be more philosophically sustained by this unsophisticated being, or a congenial savage

* Mr. Bew has been led into this error by the external appearance of enamel. Mr. John Bell observes, that there is some degree of impropriety in the term enamel, "as assimilating an animal production with a vitreous substance, although the enamel widely differs from the glassy fracture when broken." It strikes fire with steel, merely from the extreme density of its particles. Teeth, as other bones, are cartilage in the first instance, rendered solid by the superaddition of phosphate of lime; and enamel differs, according to Morichini and Gay Lussac, in having also fluat of lime. Blumenbach, notwithstanding his attention to accuracy, is in the habit of distinguishing this covering of the coronæ of the teeth by the term "vitreous," (edit. 3d,) but nobody, except Mr. B., would have ever thought of calling it "siliceous."

from the Sandwich Islands, than two rows of teeth as black as ebony.

On tartar the author says, such accretions are "owing to the action of carbon that is exhaled from the lungs."

Now tartar is usually considered to be a calculous deposit from the salivary secretion, and cemented by that mucus; which theory receives some confirmation from the circumstance that the said accretion is under the influence of gastric disorder.

We shall not notice Mr. B.'s description of the emphatical stages of the odontalgia, up to the critical moment "illustrated so happily by the Italian phrase,"

"La lingua batte contro il dente dolore,"

but merely to point out a seeming contradiction in another section of this work, where he complains of the opposition which arises "from the reluctance of parents to inflict torture on their children and relatives; an hypothesis which is as false as stairs of sand."

We are so refractory to Berkleyan scepticisms as to have really believed nothing in instrumental surgery to be done without pain, and more especially in those abstractions by instalments of teeth, where fangs horizontally given off are "distressingly diverged," (as may be seen illustrated by diagram in Mr. Beresford's *Miseries of Human Life*). Indeed the author afterwards falls into the same opinions, from the earnest conviction of experience; though, like the *petit-maître*, who tells the man on the rack that it is want of *bienséance* to cry out, he complains of young ladies at boarding-schools not being sufficiently educated in Zeno's tenets to avoid it. We should have expected him to have been enough of an antiquary to know that children at Rome cried when they were whipped, and that such frailty is by no means modern, before he had committed himself in such a description as follows:—

"In a boarding-school where I attended, the children were imprudently placed in a corner of the apartment, like so many encircled lambs for the impending slaughter. Previous to my appearance, a chair had been placed in the middle of the room, and by its side a table loaded with basins, jugs of water, tumblers, towels, and all the paraphernalia of operation. The first who took her station was a parlour boarder; and though young, old enough, as I afterwards thought, to have *acted* better. All went on well till the critical moment of removal; when, ~~seizing~~ the instrument with both hands, and, as if they were insufficient to stay proceedings, the feet flew up to their aid, and coming in contact with the leaf of the table, overturned it and the contents; which, with the accumulation of simple and compound fractures, 'past all surgery,' inundated every part of

the room, while the discordant shrieks which succeeded the crash, from all the party spontaneously joining, resembled the yell of an Indian horde, dispersed by the explosion of a bomb-shell or a Congreve rocket."—pp. 98, 99.

Mr. B. has imparted so much interest and amusement to his cases, that we are tempted to give another.

"A few months after I had been honoured with an introduction to the royal household, I was applied to by a young lady for an opinion on the then state of her teeth: in the course of our conversation, as to what was absolutely requisite for their rescue from further destruction, I professionally proceeded to trace the *cause* to the sad *effect*. Reason conveyed conviction to her comprehension, with agony, aggravated by the keenest reproaches on those whose mistaken fondness in childhood had founded the misfortune. Convulsive sobs succeeded suppressed utterance, *whilst tears, as she advanced towards a mirror*, kindly interposed, as though they would baffle, in reflection, the cruel cause of her distress.

'But when the storm found way,
'Twas wild and loud,
Mad as the Priestess of the Delphic God;
Enthusiastic passion swelled her breast,
Enlarged her voice, and ruffled all her form.'

And whilst her streaming eyes coruscated with the lightning of her resentment, her tongue was vehement in invective on the authors of her misery."

This *filial* being was one of whom, says Mr. Bew in his Italian, (which, by the by, we first read as English, with Frederic the Great's improvement of a final vowel to each word,) might truly be said,

"La Natura si fece e poi rompe la stampa."

All that remains of the story is,

"Who she was can never be revealed."—ANON.

And that, though his skill left the evil "but a trivial eyesore," this "most amiablest of women," as all good lovers write, perished soon afterwards; and we sincerely wish that her manes may not be irritated by this sublime representation. We must terminate with the "magnum opus" of the author's expectations. The fact is, he attributes an indefinite number of maladies to lateral pressure. We do believe that we may adduce ulceration and caries of teeth to such a cause; but does it not ensue in teeth protected by sufficient interspace from any contact? He reasons on this subject from resemblances to a "combination of oblong cones," "a temporary arrest of a river's rapid course;" and it appears that to "combined observations of the circulation of the vivifying juice in the vegetable economy," he owes the origin of this "hypothesis." "Dip the wig into the ocean," said the

French barber, as bold in metaphor as Mr. Bew! He treats these cases, not by extracting *without pain*, as we hoped, and fully anticipated, but by a small file passed between the tooth diseased and that in juxtaposition, not exceeding in thickness a "small note wafer, or the attenuated edge of a sheet of thin post writing paper." According to the plate, it resembles in miniature the metacarpal saw. We are instructed, in the following choice specimen of perspicuity, how to dissipate all "*incertitude*" in finding out the faulty tooth.

"This recollection" (of the point of attack) "is only to be revived by questions calculated to condense the diverged effects of the disease to its original focus, by way of slackening the thirst of inquiry at the fountain of information."—"If in this the finger of suspicion be pointed at any other tooth, let the eye of investigation fall keenly on it, and some slight difference of colour, sensibility when touched, or adhesive effluvia on the finger, may convert suspicion into certainty."

In the remaining section Mr. Bew is very learned: he speaks of instruments as far back as "a pair of leaden forceps," hung up in the temple of Apollo; which oracular divinity in physic, and the true philandering language of his godship's other department, our author seems to rival. By way of recompense for the satisfaction which he affords us by his literature, we present him, in a note, a little addition on this head from the Glossary of Du Cange*.

On closing this book *for ever*; whether it falls short of perfection, we have afforded our readers an opportunity of discovering. And after, as the preface and dedications to the then Prince Regent and Duke of Clarence assert, it has undergone royal supervision, it would be presumptuous in us to speak too decidedly. And should "the theory, through their analyzation, like *pure gold*, come forth from the furnace, neither wanting in weight nor value, my rejoiced spirit shall applaud,

* Cœlius Aurelianus (c. 4) says, "Dentiducum plumbeum odontagogum, quod nos dentiducum dicere poterimus, apud Delphos in Apollinis templo ostentationis causâ præpositum, quo demonstratur oportere eos auferri qui sunt faciles vel mobilitate laxati, vel quibus sufficiat plumbei ferrumculi conamen ad summum." "Dentaria," says Hugatio, "ferrum undè medici dentes tollunt." Ap. Tom. de Journal, et in Catholico Armorico, Dentaria scribitur Fer. an instrument from Traire Dent. Gloss. Græco-Latino odontagra, forfex dentarii. Dentiducum, an instrument for drawing teeth. Erasistratus, ap. 2, Chronic. Du Cange.

to the very echo that shall applaud again, the happy thought which led to the promulgation."

If "tinkling brass" has been for once mistaken for "pure gold," such mistake is not unique among modern authors, nor such as to warrant any repudiation of merit, laudably aspiring above the narrow fame of Brighton "to the first circles of philosophy," and an incorporation of the name of Bew with that of a Hunter and a Newton. Our modern recipe for book-making is, to place "a number of tall opaque words one before another, in a right line;" and it will make no bad addition if, *cæteris paribus*, a plate is given, as by Mr. B., of a few hollow teeth; a modification which raises this little work to the modest sum of one guinea!! As to grammatical incorrectnesses, they are noticeable in vain under any other penalty but that of Eton College; one to which the author has no little reason to rejoice at not being amenable.

To the Editor of the London Medical Repository.

SIR,—I perceive, in the remarks on my work on Epilepsy, in your general review, you observe that we have had enough of the disputes about the materiality of life, and that, indeed, you are heartily sick of them. In this feeling I sincerely participate with you; but I beg with deference, to submit, whether, as long as infidel doctrines continue to be forced upon us through the medium of medical works, we should be acting wisely in leaving them to writers of other professions to refute, and thus to permit the poison to circulate in those channels through which it has been diffused, without its accompanying antidote, and at the same time to give the world to think that we are either unable, or unwilling, to refute them ourselves.

A work by Mr. Pring, of this city, has recently appeared; of which Mr. Hutchinson, in his Proëmium to the 43d vol. of the Medical and Physical Journal, speaks thus:—"It will, there can hardly be a doubt, be referred to at future times as the origin of many improvements in this science" (Physiology). "History will probably confer on him (the author) far greater and more lasting honours," &c.

Who would imagine that this work inculcates the most daring system of scepticism which has yet appeared in our profession? (Such principles do not commonly lose by extension). It is contended, for instance, that the Deity arose in some inexplicable way out of fortuitous and pre-existent causes; that a designing principle, or Deity, is not necessary to creation and order; that the scriptural account of the

creation of man, as formed at once and entire, is absurd; that the life of man, (if I understand the author,) is an emanation from the organic spirit of the earth, or *anima mundi*, &c.

Now, Sir, I beg again to appeal to your impartial judgment, whether it is fitting that these doctrines, appearing in medical works, should be passed unnoticed by medical writers, or be left to the chance of being taken up by others? Of one thing I am sure, and have been in the habit of frequently expressing it as my conviction, that as long as there are those to be found who will heap commendation on the authors of such sentiments—until, in fact, our Profession participates in the public feeling, and rises up with one voice to condemn them, they will be found to increase in number and in boldness. It may also be said, that the mischief which medical men do in advocating infidel doctrines they only can fully undo; and whatever may proceed from them in refutation of such doctrines, will have much greater weight than when coming from the clergy, or from lay writers of other professions.

As to the praise bestowed by Mr. Hutchinson on Mr. Pring's work, the sentiments of the journal, of which he is a conductor, on these subjects, had been before declared in the review of my work on epilepsy above mentioned: but as I have replied to this article elsewhere*, I shall not trouble you with any remarks respecting it.

It is not required that a book of science should receive unqualified condemnation because it contains pernicious doctrines. But, surely, whilst giving it its just meed of praise, the young and inexperienced reader should be put on his guard against its sophistry, and the reception of principles, which are unhappily too contagious, which must unsettle his mind, and, if once received, strike away every prop on which it can repose for present comfort and future hope; and render him a deposit of malignant influences, which, as from a new centre, will spread around and contaminate the principles of others.

But my chief design in this communication is, to express a hope that at least one English journal †, for the character of which, as an old correspondent, I am a little jealous, should be preserved sacred to the defence of the truth, that it may show the world that we are not all sceptics, and that,

* See a pamphlet entitled "A Defence of the Scriptural Doctrine of Life," &c.

† The Edinburgh Journal has already taken up this subject in the manner which it demands.

in order to erect a solid and durable edifice of medical and physiological science, it is not necessary to found it on the ruins of our faith.

I have the honour to be,

SIR,

Your very obedient servant,

Bath, March 8, 1820.

J. G. MANSFORD.

We are under the necessity of holding objections to the mode and tenor of our reviews for the most part exceedingly cheap, and to pass by in silence appeals against the decrees of our critical tribunal; but it has been thought proper to deviate in the present instance from our usual plan, and to publish the above letter of our able correspondent, inasmuch as the charge, which by implication is brought by him against the *REPOSITORY*, is of a most serious nature: and to this charge we at once, and conscientiously, plead innocent. Against that mode of disputation which has been adopted in reference to the subject under debate, we have indeed ever been ready to proclaim our dissent; and even the article which Mr. Mansford refers to in a contemporary journal we do not hesitate to denounce, in spite of the great merit and ingenuity of the writer of it, to be a total failure. Let us here be permitted to reiterate our often repeated opinion, that it is not upon the ground of physiology the attacks of the sceptic can be successfully grappled with. The weapons of this warfare must not be drawn from the armoury of organization, or the combatants in favour of man's immortality will be brought to yield the palm of victory to their opponents. Do we then fearfully shrink from the contest? By no means. When it is asserted that all the difference, *moral* and *physical*, between the monkey and man, consists in a particular construction of the superior maxillary bone; when crime and insanity are inferred to be organic manifestations, which only differ in degree; when it is implied that moral motive and physical impulse are alike in obedience to the same laws of necessity; when, in fine, the notion of moral accountability is ridiculed as a chimera; it is then that we are called upon to grasp the sword of criticism, to plunge it into the very heart's core of these demoralizing positions, and lay them lifeless before the shrine of truth. That this has been our mode of proceeding, when required to declare on one side or the other, our readers will do us the justice to acknowledge, who have looked over our articles on Sir Charles Morgan, Dr. Nicholl, Dr. Haslam, and others; and it is not necessary again to go over the ground, in order

to clear ourselves from the imputations of Mr. Mansford. We shall merely content ourselves with laying the following quotation, from one of the first writers in the English language, before those individuals who contend that the proofs of after existence are to be found among the materials of our physical organization.

“It is idle to say,” says the great Dr. Paley, while defending the cause of the Christian revelation, “that a future state had been discovered already. It had been discovered as the Copernican system was; it was one *guess*, among many. He alone discovers who *proves*; and no man can prove this point, but the teacher who testifies by miracles that his doctrine comes from God.”

PART III.

SELECTIONS.

An Account of a Membrane in the Eye, now first described.

By ARTHUR JACOB, M.D., Member of the Royal College of Surgeons in Ireland, Demonstrator of Anatomy and Lecturer on Diseases of the Eye in the University of Dublin.

(From *Philosophical Transactions* for 1819, Part II.)

ANATOMISTS describe the retina as consisting of two portions, the medullary expansion of the nerve, and a membranous or vascular layer. The former externally, next to the choroid coat, and the latter internally, next to the vitreous humour*. All however, except Albinus and some of his disciples, agree, that the nervous layer cannot be separated so as to present the appearance of a distinct membrane, though it may be scraped off, leaving the vascular layer perfect. That the medullary expansion of the optic nerve is supported by a vascular layer, does not, I think, admit of doubt; but it does not appear that Albinus was right in supposing that the nervous layer can be separated in form of a distinct membrane, though shreds of a considerable size may be detached, especially if hardened by acid or spirit.

Exclusive of these two layers, I find that the retina is covered on its external surface by a delicate transparent

* Ruysch. *Epist. Anat. Prob.* xiii. Albinus, *Annot. Acad. lib.* iii. cap. xiv. Haller, *Elem. Phys.* t. v. lib. xvi. sect. 2. Zinn. *Descrip. Anat. Oculi*, cap. iii. sect. iii. Sabatier, Boyer, Charles Bell, Cuvier, &c.

membrane, united to it by cellular substance and vessels. This structure, not hitherto noticed by anatomists, I first observed in the spring of the last year, and have since so frequently demonstrated, as to leave no doubt on my mind of its existence as a distinct and perfect membrane, apparently of the same nature as that which lines serous cavities. I cannot describe it better, than by detailing the method to be adopted for examining and displaying it. Having procured a human eye, within forty-eight hours after death, a thread should be passed through the layers of the cornea, by which the eye may be secured under water, by attaching it to a piece of wax, previously fastened to the bottom of the vessel, the posterior half of the sclerotic having been first removed. With a pair of dissecting forceps in each hand, the choroid coat should be gently torn open and turned down. If the exposed surface be now carefully examined, an experienced eye may perceive that this is not the appearance usually presented by the retina; instead of the blue-white reticulated surface of that membrane, a uniform villous structure, more or less tinged by the black pigment, presents itself. If the extremity of the ivory handle of a dissecting knife be pushed against this surface, a breach is made in it, and a membrane of great delicacy may be separated and turned down in folds over the choroid coat, presenting the most beautiful specimen of a delicate tissue which the human body affords. If a small opening be made in the membrane, and the blunt end of a probe introduced beneath, it may be separated throughout, without being turned down, remaining loose over the retina; in which state, if a small particle of paper or globule of air be introduced under it, it is raised so as to be seen against the light, and is thus displayed to great advantage; or it is sometimes so strong as to support small globules of quicksilver dropped between it and the retina, which renders its membranous nature still more evident. If a few drops of acid be added to the water after the membrane has been separated, it becomes opaque and much firmer, and may thus be preserved for several days, even without being immersed in spirit.

That it is not the nervous layer which I detach, is proved by the most superficial examination; first, because it is impossible to separate that part of the retina so as to present the appearance I mention*; and, secondly, because I leave the retina uninjured, and presenting the appearance described by anatomists, especially the yellow spot of Soemmerring,

* See Haller, Zinn. &c. loc. cit.

which is never seen to advantage until this membrane be removed: and hence it is that that conformation, as well as the fibrous structure of the retina in some animals, becomes better marked from remaining some time in water, by which the membrane I speak of is detached.

The extent and connexions of this membrane are sufficiently explained by saying, that it covers the retina from the optic nerve to the ciliary processes. To enter into further investigation on this subject, would lead to a discussion respecting the structure of the optic nerve, and the termination of the retina anteriorly, to which it is my intention to return at a future period.

(To be continued in our next Number.)

PART IV.

FOREIGN MEDICAL SCIENCE AND LITERATURE.

RETROSPECT OF FOREIGN MEDICAL SCIENCE AND LITERATURE, FOR THE YEAR 1819.

UNIVERSAL JOURNAL OF MEDICAL SCIENCES.

JULY, 1819. — *Considerations on the State of Medicine in France, from the Revolution to the present time.* By Dr. Regnault. — Contains nothing susceptible of condensation.

Memoir on Black Cataract and Gutta Serena, followed by a Case of Black Cataract, at first considered as Amaurosis, and afterwards operated upon with success. By Dr. Coze. — After briefly tracing the history of black cataract, with the names of the writers by whom it has principally been elucidated, and the characters which serve to distinguish this affection from amaurosis*, the author details a case of black cataract in a man aged twenty-five. Mistaken for paralysis of the retina, it was subjected to the ordinary treatment; and, among other remedies, the nux-vomica was largely administered in vain: at length its real nature was discovered; and the operation, by extraction, performed on the left eye. The crystalline was of a black colour, slightly bordering on yellow, and soft as jelly. The wound of the cornea was nearly cicatrized on the tenth day, and the eye perfectly restored, when a "white cataract of the capsule of the crystalline," making its appearance by a speck, which at first occupied half the pupillary orifice, and afterwards extended

* The diagnostic signs here enumerated are those commonly indicated by the best writers on the subject.

so as completely to obstruct it, supervened; and was removed by a second incision of the cornea. This circumstance is considered by the author as remarkable; not that such secondary lesion rarely occurs after ordinary cataract, but because it is the first instance known to him, wherein, after extraction of black cataract, the capsule has become white and opaque. The right eye, at the period of this communication, had not been operated upon.

On the Electricity of the Blood in Diseases. By Dr. Bellingeri. (From an Italian journal*.)—Vassali has shown, by the electrometer, that the blood generally affords signs of positive electricity; and that, in some cases of high inflammation only, it is negatively electrified. The author proposes new experiments, with a view of further illustrating this point of animal physiology. The degree of electricity of the blood in health determined, diseases may be ranged in two classes. To the first may be referred inflammatory affections, wherein the electricity of the blood is diminished in an inverse ratio to the violence of the symptoms; (hence the buffy coat characterizing inflammation). To the second, chronic maladies, in which the electric state of the animal fluid is proportionally augmented. This specimen will probably satisfy our readers.

Some Considerations on a living Individual of doubtful Sex. By Dr. Tarozza. (From the same).—Evidently a case of malformation of the genital organs in a female. The presence of two small testes-like bodies, each furnished with a chord which traversed the abdominal ring, but destitute of epididymis in the labia, a vagina externally imperforate, and internally obstructed by a membranous septum, and an imperfectly developed uterus, were the leading characters by which this case was distinguished. The clitoris was well formed; the external configuration decidedly female; and, after the vagina had been rendered perforate by an operation, the menses made their appearance.

Notice on Acupuncture and a new kind of Cupping-Glass armed with Lancets; invented by Dr. Demours.—The subject of acupuncture we have before noticed. We have now only to observe, that the author has contrived a cupping-glass, with two tubular orifices. One of these, vertical and situated at the summit of the glass, receives a copper cylinder, into which enters a rod of copper, armed with a needle; the other orifice, lateral and oblique, serves for the adaptation of an exhausting syringe. The method of employing it is too obvious to require description. A lancet may, at any time, be substituted for the needle; or, if it be required, four of

* Annali Universali di Medicina.

these instruments may be fixed on a small cross of iron constructed for the purpose. The depth to which the instrument penetrates must be regulated by the quantity of blood necessary to be abstracted. Small streams may, if required, be obtained, by an introduction sufficiently deep. The blood is afforded by the capillary vessels. An engraving of the instrument accompanies this description. Its utility is very highly extolled.

Observations on Amenorrhœa. By Dr. Mahon. (From the English*).

Case of Traumatic Tetanus cured by Mercurial Frictions, Jalap, and Narcotics, externally and internally employed. By M. Fol.—Subject aged twenty. Nail of the right thumb nearly torn away by accident, and ribs fractured. Tetanus, with all its symptoms, speedily followed.—October 4th. First visited by the author. He was yet capable of swallowing; hungry; complained of gastric pain; and tormented by frequent startings. The wound was neither inflamed nor swollen, and little painful. Three grains of calomel with jalap and anodyne powder, in *water*, every two hours; mercurial frictions along the spine; emollient poultice to the thumb, previously smeared with warm oil. Succeeding days, worse; action of the heart very languid. Amber added to the powders; dose of opium increased; frictions of oil, and hot fomentations to the abdomen.—7th. Worse; no rest; danger imminent. Injections of asafœtida and opium every four hours; fumigations of amber and opium every six hours.—8th. All the symptoms mitigated. Mouth beginning to exhibit mercurial influence. Pain in the epigastrium and region of the liver; constipation. Plan, with exception of fomentations, continued.—10th. Startings gone; abdomen soft; jaw completely opened; stiffness of neck and back much diminished. Epigastric pains removed by castor oil.—22d. Nail removed; convalescent. Fortunate result, principally, but perhaps incorrectly, attributed to the fumigations.

On the American Mocking Bird, (Turdus polyglottus).

On the Employment of Vinum Colchici, &c. By Sir E. Home. (From the English).

AUGUST—*Medical Knowledge of the People of the Island of Tonga.* (From the English†).

Cases of Encephalic and Colic Intermittent Fever. By Dr. Desruelles.—The author of this paper is evidently one of the disciples of Broussais, and espouses the doctrine promulgated by him, that the fevers, termed idiopathic, are invariably dependent on some lesion of the internal organs. The same ob-

* Medical and Physical Journal.

† Ibid.

servation, Desruelles contends, may be correctly applied to intermittent fevers. The extension, not the innovation, of the "grand and novel idea" of Broussais forms his principal object. He pretends not to subject intermittents to the same kind of treatment as continued fever, nor reject febrifuges, but to indicate those cases in which means not deemed febrifuge may be substituted for them, and those wherein cinchona and its succedanea serve only to aggravate the affection which they are intended to cure. With such views, the following cases are selected:—

Case I.—Encephalic Intermittent Fever.—November 18, 1818. A stout boy, aged four, seized in the morning with severe pain on the top of the head: returned at night, preceded by transient shivering; continued two hours; and terminated in copious sweat: face, meanwhile, red, with drowsiness, and cold extremities. Night calm. Treatment: pediluvia, injections, mucilages.—19th. Uneasiness about noon. Evening; hot skin, and headach. Midnight; general rigors, succeeded by icy coldness, and sudden swelling and redness of the head, previously very painful; extremities cold; drowsiness without motion; stertorous respiration; and convulsions of the lips and *alæ nasi*. Lower jaw fallen from relaxation of its elevator muscles. In about an hour, perspiration broke out; the mouth became firmly closed; and all the symptoms subsided.—20th. Seven A. M. Weariness; depression; fever; face red, turgid, and covered with sweat.—Eight. Complete remission; pulse unnaturally slow. Stimulant pediluvia; diaphoretics; purgatives; abstinence.—Three P. M. Cephalic pain recurred; pulse slow, strong, hard. Seven leeches behind each ear; bled till six. Slept from seven till ten, and passed a good night. Surface universally moist.—21st. Convalescent. A drastic purgative. No farther paroxysm.

Case II.—Subject, a stout boy, aged six. Two days convalescent from severe and unfavourable measles, attended with such symptoms as required employment of warm bath and leeches to the epigastrium. Seized at night with headach. Head next day inclined to the left.—Two P. M. Symptoms of congestion, with drowsiness; completely subsided in two hours. Two following days, similar attack at the same hour. Next day, occipital pain; tongue pale. Inclination of the head, and all the symptoms removed, by leeching, blistering, calomel purgatives, and stimulant baths.

Case III.—Colic Intermittent Fever.—Subject, an unmarried lady, aged twenty-four. Had been affected, for one year, with an irregular intermittent, most commonly tertian. During the paroxysm, severe colic, and urgent thirst, pre-

ceded by spinal shiverings: at its close, diarrhœa, with heat, and uneasiness for an hour after. In the intermissions, same heat and thirst succeeded ingestion of food; and diarrhœa about four hours after: pulse then good; no pain; merely weariness and depression. Fifteen months before, had recovered, with difficulty, from a putrid bilious fever, the paroxysms of which were ushered in by colic and diarrhœa. Stimulants and astringents had been tried in vain. Menstruation regular; marasmus impending. This affection, referred to chronic inflammation of the ilium, and particularly the colon, which the cinchona, prescribed against the sympathetic fever, had only kept up, was soon and permanently removed by rigid abstinence, mucilaginous medicines combined with opium, and anodyne emollient glysters. Stimulants were wholly abandoned; and the patient recovered her flesh and strength.

Case of Amaurosis, induced by Fear. (From the English*).

VARIETIES. — *Magnetism.* — Its practice publicly denounced throughout the provinces of the Austrian empire.

New Edition of the Writings of the Greek Physicians; with a Latin version, announced, in a cheap and correct form. By Professor Kuhn, of Leipsic. Impression to be superintended by the celebrated Grecian Professor Shæffer.

Bulletin of the Medical Society of Emulation.

Ligature of the External (superficial Femoral) Artery for Aneurism. By M. Sper, &c. — There is nothing worthy of particular description in this case; the subject of which is a male, aged twenty-six. The aneurism resulted from a sword wound of the thigh, implicating the superficial femoral artery. Compression was tried in vain; and on November 7, (the twenty-first day from the accident,) the artery was tied about ten lines below the origin of the profunda. Two ligatures were employed, and a cylinder of sparadrap interposed between them. The tumour immediately ceased to pulsate. The usual dressings and precautions, with regard to the application of external warmth, were adopted. Considerable hæmorrhage occurred about an hour afterwards. A small arterial branch, arising from the internal side of the femoral artery, above the ligature, was the source of it. Unmanageable by ligature, it was at last stopped by compression. Suppuration established on the eleventh. Ligatures and cylinder removed on the twelfth. Completely well in the beginning of December. The narrative is terminated by some reflections respecting the operation for aneurism, in which the British Surgeon would discover nothing new or important.

* Medical and Physical Journal.

SEPTEMBER.—*Memoir on Vaginal Lithotomy.* By Dr. Coze.—The object of this long and ably written paper is to recommend that method of operating for stone in the female which is distinguished by the title of vaginal lithotomy, and descriptive of which a paper has already been published in the original department of our Journal*. Referring the reader to this, we shall have no occasion to retrace the particular steps of the operative process. Sixteen cases of it are detailed at considerable length from various authors; and from the facts thus accumulated the following conclusions are subsequently drawn:—The operation of vaginal lithotomy is exempt from the accidents common in extraction of the stone by the urethra, and allows of the removal of these substances, however large, without rupture or contusion. In consequence of the thinness of the parts incised, and their protection from the influence of the external air, inflammation is little to be apprehended. It also exposes much less to consecutive inflammatory affections than hypogastric lithotomy, which has in some cases been succeeded by enteritis or peritonitis. The thinness of the divided parts also renders it preferable to the latter operation, however successfully this may have, in numerous instances, terminated; particularly when there is reason to apprehend the existence of a large calculus. If the stone be not larger than an almond, its extraction may be attempted by incision of the urethra; the only danger attendant on which is incontinence of urine. This mode may still be tried, even if the calculus be of the volume of a pigeon's egg, but not larger: and, even in this case, the parts frequently suffer such injury as induces inflammation. The event of this operation is rarely fatal, since, out of sixteen subjected to it, not one died. Frère Cosme lost seven women out of forty-six whom he operated upon by the high apparatus; while in twenty, in whom the calculus was extracted by the urethra, five died, and four became afflicted with incontinence of urine. Hence it appears that vaginal lithotomy occupies the first rank, the hypogastric variety the second, and that the least advantageous is the operation by incision on the lateral or anterior part of the urethra. Under this process as many *deaths* have occurred as *fistula* by the vaginal operation. Contraction of the vagina, consequent on cicatrization of the wound of the bladder, may be expected to ensue from this operation, but it does not appear to have taken place in any of the instances here recorded; nor, perhaps, is it likely to occur in any considerable degree from a simple incision. After all, there is no

operation perfectly exempt from inconvenience; and that is surely the best which fulfils the indication without endangering the life of the patient. As to the peculiar operative process which should be preferred in vaginal lithotomy, that which has succeeded so well in the hands of Clemot should obviously be chosen. It combines extreme facility of execution with freedom from the danger of implicating the adjacent parts. The method described by Mery is also very simple, easy, and probably successful; but the employment of the gorget will be indispensable, to preserve the neighbouring organs, and fix the parts operated upon so that they cannot evade the action of the instrument.

Medical Knowledge of the People of the Island of Tonga. (From the English*.)

Reflections on the Scurvy, and Observations on a Scorbutic State, resulting exclusively from Moral Affections. By Dr. Charpentier.—Affections of the mind exert an influence in the production of scurvy, the extent of which has not hitherto been adequately appreciated. To demonstrate this, is the object of Dr. Charpentier's essay, and of the case therein detailed. A gentleman, aged twenty-one, of phlegmatic temperament and sedentary habits, became a victim to melancholy and ennui. Pains in the thorax and epigastrium, deep-seated and transient, cough and oppression, indicated impending phthisis; but, on more minute examination, the developement of a scorbutic affection was detected. The gums were swollen and sanious, and breath offensive. Such was the state of apathy and distaste for exertion, that the advice to try active exercise and change of scene was utterly disregarded; and the disease made daily and alarming progress. Extreme debility, difficulty of motion, from the numbness and weight of all the parts, universal muscular uneasiness, profound lassitude, especially in the legs and back, oppression and even suspension of respiration, disorder of circulation, and anxiety, were now experienced, and menaced fatal consequences. The cinchona, anti-scorbutics, exercise, and change of scene, were, however, had recourse to with signal benefit: and, by steady perseverance in this plan, the patient gradually recovered. The influence of the moral state on the morbid affection was conspicuously evinced by the immediate aggravation of all the symptoms on the separation of the young man from his mother, in whom all his hopes and confidence were reposed, and the prompt relief experienced on her return. It may be well to remark that the subject of this case was in affluent cir-

* Medical and Physical Journal.

cumstances; that the house he occupied was perfectly dry; and that his disease was developed during a dry summer—a season obviously the least favourable to the production of this kind of malady.

Case of Rupture of a sound Heart. By Dr. Fischer. From the German.*

Case of remarkable Cerebral Affection. By W. Turk.

Case of Strangulation of a Portion of Intestine, &c. By R. Ph. Jones.—Both of these last from an English Journal.

Letter of Dr. A. M. Salvatori, of St. Petersburg, to Professor Morrichini, at Rome.—The object of this is to communicate “an important discovery,” respecting a new method of treating hydrophobia, with which the author recently became acquainted during his residence in the government of Pultava. The absurdity of the thing is so evident on the first glance, that we have felt great hesitation as to the propriety of honouring it with a serious notice. Here, however, it is; and the reader may make the best of it. What the intellect of that man can be, who, without one single fact to advance in support of this communication, can dignify it with the title of “an important and interesting discovery,” we are utterly at a loss to comprehend.—“In the vicinity of the frænum linguæ of man, or other animal, bitten by a rabid animal, there arise some whitish pustules which open spontaneously about the 13th day after the accident—the period at which the first symptoms of hydrophobia are developed. The method followed by the inhabitants of Gadici consists in opening these pustules with a sharp instrument; the patient being cautioned to spit out the ichor which escapes, and to gargle the mouth repeatedly with salt water. This operation should be performed on the 9th day from the bite; and such is the public confidence reposed in it, that, in this country, hydrophobia has ceased to inspire the slightest dread.”

Letter from Dr. Demours to the Editor. Respecting his newly invented cupping apparatus.

Necrological Notice of Dr. Arnie, First Physician to the Colony of Guadaloupe. By Heraudren.—The subject of this notice was born at Brest in 1752; and died at Basse-Terre, January 15th, 1819.—He appears to have been greatly venerated by the inhabitants of Guadaloupe, among whom he had passed the last thirty years of his life, and his death to have been deplored as a public calamity. He had seen much of the yellow fever at different periods, and treated, with great success, the Europeans attacked by it. He considered it as not essentially, but only under some circumstances, contagious.

* REPOSITORY, Vol. XI. page 422.

He has unfortunately left behind him no written record of the talents and experience which he evidently possessed.

OCTOBER.—*Memoir on the acute Cerebral Congestions of Infancy.* By Dr. Lasserre.—The great length to which this memoir is extended will prevent us from giving that full and accurate account of it which its value claims. After noticing the erroneous opinion, commonly received, that the serous collection in the ventricles is the primary cause of the symptoms observed in acute hydrocephalus, the writer contends, that as irritation presides in the development of the thoracic diseases of youth, so we may resort to the same agent to explain the occurrence of the cerebral affections of infancy; since observation serves to confirm the analogy between them which reasoning first suggested. All children, without exception, he proceeds to remark, up to the age of seven or eight, whom he has seen suffering from hydrocephalus, have exhibited a large head with prominent frontal region; lively and intelligent eyes; extreme vivacity of gesture; a fair or light-brown complexion. On the slightest disturbance of the digestive organs, or least difficulty experienced in dentition, symptoms of cerebral disorder are developed; as drowsiness, partial convulsions of the face and limbs, alternate paleness and flushings of the cheeks, defective appetite, occasional vomiting of a greenish matter, undigested aliment, or mucus. From the external signs exhibited by the conformation of the head, and the premature development of the understanding, apparently its consequence, may readily be inferred an excessive development of the brain, with regard to the rest of the system, characterized by great facility of receiving the impression of irritating causes, local or sympathetic. In this conformation, more readily appreciated than described, consists the predisposition to cerebral congestions. An attentive survey and rigorous explanation of the phenomena observed, and comparison of the diseased structure after death with the symptoms noted during life, are the means by which the author professes to have prosecuted the inquiry; and several interesting cases are given in elucidation of his doctrine, and of the practice founded upon it. We shall select the fourth as preferable, on account of its brevity of description, and the detail of morbid appearances by which it is accompanied. A girl, aged ten, suffering from chronic pleurisy, exhibited, six days before death, most of the symptoms described in the preceding cases: among others, profound drowsiness; dilatation and insensibility of the pupil; plaintive sighs, during which the hands were directed, as by an automatic movement, to the head, particularly its right side; convulsive motions of the arms, with subsultus tendinum,

and extreme unsteadiness of the pulse. The symptoms were somewhat relieved by application of leeches to the temples, but they speedily returned, and terminated in death.

Dissection.— Both pleuræ filled with a sero-purulent fluid, particularly the right, which was considerably thickened. Intestinal mucus membrane pale. Cerebral ventricles containing about five ounces of bloody serum. The arachnoid membrane of a rose colour, and its vessels apparently loaded. Cerebral substance firmer than ordinary. Sinuses of the dura mater distended by much black and thickened blood. Comparison of the lesions of the cerebral membranes observed in this instance with the symptoms presented during the last days of the patient's life, throw much light, in the author's opinion, on the etiology of this affection. The traces exhibited on the body evidently announce a repetition of the phlegmasia of the pleura upon the membranes of the brain. Here, in fact, as in the thorax, the abundant secretion of serum was the result of the inflammatory action of which both parts clearly displayed the vestiges. The arachnoid was, like the pleura, diseased.

Three other cases are circumstantially detailed; the first of which exhibits an instance of idiopathic cerebral congestion: in the second and third, the affection obviously resulted from irritation of the intestinal mucous membrane, sympathetically communicated to the brain. All three terminated favourably, under the treatment presently to be noticed. Two other fatal cases are cursorily adverted to; but as dissection was not practised, their history is suppressed.

The author, although he does not assert that in all the cases detailed by him cerebral phlegmasia actually existed, yet thinks it demonstrated that the serous collection of the ventricles is invariably an effect of a primary increase of action in the parts naturally destined to secrete this fluid; and that all the means employed to remedy the pretended debility in these cases will be injurious. So far is the presence of serum in the ventricles from being necessary for the production of the symptoms of this disease, that the irritation of the organ alone, local or sympathetic, will suffice to develop it: and the danger should always be appreciated from the severity and continuance of the irritation, without considering, except as a secondary object, the presence of the fluid which may be effused. As to the treatment on the onset, and during the early stage of the disease, the indication consists in relieving by local, rarely general blood-letting, the affected organ, and distributing, by external irritants, and purgatives principally mercurial, more uniformly over the other organs the excess of vitality by which the brain is

oppressed. Afterwards, or when these means have been unavailing, rubefactions, blisters, or moxæ to the cranial integuments, may operate a salutary diversion and save the patient. Most Practitioners who employ cold water externally in these cases appear to have prescribed indiscriminately total immersion and topical affusions. By some general aspersions have been preferred. Now such means have, doubtless, been productive of utility, but rules for their rigorous application have never been laid down; and the Physician who rashly prescribes them will involve his patient in considerable risk. For who can accurately calculate the result of the internal concentration which is always the first effect of cold applications upon the surface? And what cautious Practitioner would employ such an agent in a disease itself characterized by cold of the external parts, consequent on the vital concentration upon an organ so delicate as the brain? The cold bath, by the secondary reaction which it determines towards the circumference, may indeed effect a salutary diversion: but it is impossible to appreciate, *a priori*, whether there remains, in the individual subjected to its action, sufficient energy to bring about this reaction, without which mischief will result. And it remains, moreover, to be proved, whether such reaction will counterbalance the evil which may result from the primary action of the cold. These uncertainties should render the Physician extremely circumspect, and invite him to discover a modification capable of effecting the desired object without exposing his patient to any risk. The application of the cold bath, as an antispasmodic, merits not a moment's consideration. Of all the modes of applying cold to the skin, affusion appears to Dr. Lasserre to be the most rational: and this may be rendered still more advantageous, if, in cerebral congestion, it be employed while the lower part of the body is plunged in warm water, rendered more stimulant by the addition of mustard, vinegar, or other irritating substance. The efficacy of this method is illustrated by the record of a fifth and last case, wherein the cold affusion was repeatedly employed in this way with signal relief. The subject of it was a large headed boy, aged five; who, during dentition, had suffered from cerebral congestion. The exciting cause of the present affection was a fall. The affusion was assisted only by the application of six leeches to the head, and a purgative injection. The attack was severe and obstinate, but the boy permanently recovered.

Case of very severe Enteritis, treated on the Principles of the Doctrine of Contra-stimulus. By Professor Tommassini*.—

* From a discourse delivered by the Professor at Bologna in 1818.

An instance of most violent and obstinate intestinal inflammation, induced by exposure to cold during pregnancy. Repeated bleedings from the arm, with the internal employment of magnesia, were at first prescribed. On the second day premature delivery took place. Aggravation of all the symptoms ensued. The lochia was suppressed; and blood-letting again became necessary. Magnesia alone seemed to suspend the vomiting. After a drastic purgative, which operated powerfully, and a sixth blood-letting, the symptoms were still farther exasperated. With unmitigated pain and vomiting, and tumid abdomen, the pulse grew feeble, countenance sunk, and temperature of the surface unnaturally depressed. Cordials and opium were now administered; their good effect transient and illusory. Excessive dryness, thirst, anxiety, sense of gastric fullness and oppression, and incessant vomiting, followed. The alvine discharges were suppressed. Some relief was obtained from purgative injections; but from the state of the countenance and pulse, and coldness of the extremities contrasted with the interior heat, impending gangrene was apprehended. Antimonials prescribed.—Fifth day, appearances still worse. Abdomen hot and tumefied; extremities quite cold; pulse irregular; countenance deathly, and covered with a cold sweat. The internal employment of ice now determined on as a last resource. The good effects of the first trial encouraged its repetition: sleep ensued; the vomiting, coldness of the extremities, and other symptoms, were greatly relieved; and nothing except the iced water was taken for several days.—Sixth day, symptoms still improving; lochia slightly appearing; some agitation during the night.—Seventh, agitation increased by the pain and swelling of the breasts; abdomen more tense and sore; pulse febrile. Blood again drawn to eight ounces, and covered with an inflammatory buff: cold drinks continued; antiphlogistic injections: refreshing sleep; lochia abundant; much flatus discharged per anum.—Eighth, skin and pulse improving: injections, magnesia, and acetate of potash continued with excellent effect.—Eleventh and twelfth, abdominal pains and fever recurring; venesection again employed; bowels regulated by small doses of extract of rhubarb and magnesia; convalescence. The paper is terminated with some observations by the Professor of Bologna, which evince that the doctrines of Brunonianism, whatever ascendancy they may once have acquired in that part of the Continent, at last experience the fate which they so justly merit.

Case of Hare-Lip, complicated with Fissures in the Palatine Vault. By M. Couronné.—We find nothing peculiar in the

case of congenital deformity here described with great minuteness, or in the operative process whereby it was remedied. A portion of bone, which projected between the lips of the fissure, was removed by a small saw previously to bringing them into contact. The case appears to have terminated very successfully.

Case of Abortion followed by the Expulsion of a Mole. By Dr. Suchet.—Moles, the writer observes, sometimes accompany pregnancy. The complication is singular, and not sufficiently understood: hence he has been induced to record the following case:—A woman, aged forty, in the third month of pregnancy, had, for four hours, been suffering profuse uterine hæmorrhage, from detachment of the placenta, when Suchet first saw her. She was then in a state of syncope. The action of the uterus having been excited by introduction of the finger, the fœtus was expelled. The hæmorrhage was still, however, kept up by the presence of the placenta, which, after fresh excitation of the uterus by the fingers, at length came away. The discharge yielded after awhile to injections of diluted vinegar, and its application by wetted cloths on the hypogastric region. Acid beverage and light clothing were, in addition, prescribed. Still the uterine tumour continued larger than common, and excited an apprehension of internal hæmorrhage; but as the tumour did not increase, and the forces of the patient were rallying, the case was left to Nature, with the exception of occasional frictions on the hypogastric region. About midnight the hæmorrhage recurred; and in half an hour a fleshy substance, accompanied by several coagula, was expelled. It was covered by membranes of an irregular, rounded figure, largest at the extremity adherent to the uterus, and, as it were, strangulated in the centre. Its vessels were very large in proportion to its volume. This substance, by receiving part of the blood destined to the support of the fœtus, had prevented the due development of the fœtus; and this probably determined abortion.

Case of Hepatitis, with Anasarca, Arthritis, Peripneumonia, Pericarditis, and Sthæpic Hydrothorax. By Dr. Malusi.—There is nothing interesting or practically useful in this case. It terminated favourably under the employment of an antiphlogistic and diuretic treatment. Subject, a brewer, aged thirty-seven. (From the Italian*.)

Table of Deaths caused by Small-pox twenty years before and twenty years after the Introduction of Vaccination, &c. (From the English).

* Annali Universali di Medicina de Milan.

On the Origin of Vaccination.—We have observed, for many months past, in some of the French journals a laboured attempt to deprive England of the immortal honour she has acquired by the discovery of vaccination. The present is a repetition of the same idle and hopeless enterprise. Some Mr. Pew, an English Surgeon, is *said* to have received from some M. Rabaud, a Protestant minister, the idea of inoculating with vaccine virus, so far back as 1787; and this M. Rabaud is *conjectured* to have borrowed the notion from the peasants of Carcassonna. Such assertions stand in need of no serious refutation.

On the Employment of Extract of Stramonium, &c.—(From Dr. Marcet.)

Institution for the Insane.—An admirable establishment of this kind exists at Aversa, in the kingdom of Naples. M. de Linguiti is the director. His plan of treatment consists principally in the occupation and diversion of his patients by moderate work. With this view, he has established in his house a press, from which several works have already issued. Other patients are employed in the translation of amusing books during their lucid intervals; some in music or horticulture, but the greater part in the manufacture of wool. In this manner they are at once rescued from habits of indolence, and rendered useful to society. The same system of labour is adopted for the female lunatics, who engage in it more eagerly than the men. Every thing around them is particularly neat and elegant, and all objects capable of awakening a melancholy reflection are carefully excluded. The windows, which command the prospect of a beautiful country, are even secured by iron bars fashioned and coloured so as to resemble flower-pots, whereby all idea of violence or restraint is done away.

Chemical Experiment on Mount Vesuvius.—From condensation of the vapour emitted by one of the mouths of the crater of this volcano, a quantity of clear distilled water was procured, which had a taste of fat, and a decided smell of burnt animal substances. It exhibited no trace of sulphureous acid, or uncombined acid. The experimentalist, Don Gimbernat, believed it to be saturated with matter of an animal nature.

Necrological Notice of Dr. Chaumeton.—An interesting and melancholy narrative, replete with useful lessons of instruction to the literary Physician. As such, and as the memorial of a man of great talents and erudition; we shall more fully notice it hereafter.

NOVEMBER. *Remarks on Nux Vomica considered as a Medicine.* By Dr. Coze.—The object of this writer is solely

to ascertain whether the *nux vomica* be susceptible of inducing inflammation in the organs submitted to its immediate action. After reviewing at considerable length the results of numerous experiments, instituted by several eminent physiologists, with this substance, on the inferior animals and man, the author records the observation of a young Physician, that few of the many individuals whom, he, in hospital practice, has seen submitted to its influence, have been discharged in perfect health. Several, after experiencing a temporary amendment, have been taken off by a fresh attack of the disease, (hemiplegia,) to which the remedy singularly predisposes, by interrupting, during its action, the freedom of circulation. Dr. Coze then details, from his own practice, two cases wherein the danger from the employment of the *nux vomica* was developed with great rapidity. In the first, a case of hemiplegia in a man aged twenty-six, the ingestion of six grains of the alcoholic extract by mistake, at one dose, produced violent tetanus. The treatment was, after the subsidence of these effects, continued for six weeks, without decided benefit. The second case is that of a delicate hemiplegic female, aged nearly sixty. In August, 1819, she was treated, at *l'Hotel-Dieu*, with tincture of *nux vomica* at first; for some days given in injections, afterwards, from her inability to retain these, the alcoholic extract was administered in grain pills for a time, without effect: hence the dose was augmented. Three grains were imprudently swallowed at once, and produced extremely violent paroxysms of tetanus, with a gastro-enteric inflammation, which terminated fatally in three days. On dissection, the stomach was found highly inflamed; but the principal source of the symptoms was in the (small) intestines, which were violet-coloured, and nearly gangrenous in several places, and tore with facility. The lungs were considerably loaded with blackish blood, and their structure appeared to be redder than common. There was a little serum in the cerebral ventricles. On the whole, Dr. Coze concludes that inflammation is a frequent consequence of the administration of the *nux vomica*, whether employed as medicine or poison; that largely or long administered, it may induce inflammation of the stomach or lungs, cerebral congestion, terminating in apoplexy, formidable cough, and hæmoptysis; that the tetanus excited by it exhibited an aspect very terrible; and that even some of the cases consigned in the memoir of Fouquier are calculated to intimidate its boldest partisans. The expediency of administering this remedy by the rectum is then suggested, and a striking instance brought forward in illustration of its efficacy when thus applied. From the

safety with which it may be introduced into the internal cavities, as the rectum and bladder, the idea of its beneficial employment to the surface of blisters, issues, and setons, is thrown out. In local paralysis, as of the retina, tongue, larynx, pharynx, &c. this plan might prove extremely beneficial. An ointment made up with a small proportion of the alcoholic extract would be the best mode of its application. In paralysis of both superior or inferior extremities, or hemiplegia, injections of it would be preferable. The strychnine, separated from the inert portion of the fruit, might be advantageously used. From its extreme activity, however, it must at first be employed in very minute portions, and its effects be vigilantly watched, and, if inordinate, counteracted. Dr. Coze lastly speculated on the trial of the *nux vomica* in ordinary tetanus, which differs, in the permanence of the spasmodic contractions observed in it, from the tetanic affection recurring by paroxysms, induced by the action of this substance. The idea is, at all events, ingenuous, and ought not to be hastily rejected. In such an experiment, it will be obviously necessary to administer the *nux vomica* in larger doses than are required in paralysis, since medicines act with diminished energy during the tetanic paroxysm.

Case of Atrophy of the Testicles. By Dr. Pihorel.—The affection of the testes, in this case, originated from violent external injury, whereby the structure of the organs was destroyed, and their functions irrecoverably lost. The subject of the observation was a brave and spirited soldier, aged twenty-one; and the moral and physical degradation, resulting from the defect of the powerful influence which the seminal glands exert upon the system, is described in a very eloquent and forcible manner.

Case of Tetanus, cured by copious Blood-letting, Opium, and Calomel. By Dr. Painchaud.—A female, by a fall on the ice, in December, 1818, cut the integuments of the right knee. She continued her occupations; and in a week after, when the wound was nearly healed, experienced, with a severe pain in the knee, all the symptoms of tetanus. The usual treatment was for some days unavailingly employed. Bleeding was then had recourse to, and only aggravated the spasm: large doses of opium internally, and topical frictions with it. The wound of the knee was also extended; and turpentine applied, with a view to increase the inflammation, and expedite the suppurative process: ice to the head; calomel and opium internally. The symptoms, at first mitigated, became subsequently more violent; and amputation, the only apparent resource, being rejected by the patient, her situation was considered hopeless. In this state, thirty-six

ounces of blood were drawn by Dr. Painchaud; and protracted syncope, with evident relaxation of the spasm of the jaw, induced. Four ounces of castor oil were, at this favourable moment, introduced by the mouth, and as much thrown up by glyster. Two copious stools followed; but the symptoms reappeared with augmented violence. Bleeding to eighteen ounces again induced syncope; and an ounce and half of laudanum was administered in twenty-four hours, for three successive days. On the 4th, the spasm of the jaw and convulsions recurred; thirty ounces of blood again drawn, and relief as by enchantment. The tincture of opium now exchanged for the extract, combined with calomel. Sixty grains of each were daily given, for three days; and for six days afterwards, the same quantity of opium alone. Salivation did not ensue. The bowels only were affected, and several worms expelled. The patient was soon well.

Case of Nervous Aphonia. By Dr. Van-Peene.—The affection, in this instance, was the consequence of neglected pulmonary catarrh. Subject, a male, aged forty-four. Though neither cough nor expectoration existed, it was at first considered and treated as phthisis. The writer, however, on being consulted, viewed it as a spasmodic affection of the vocal organs, and particularly the recurrent nerves. Under this view, an issue was inserted in the arm, and an anodyne linctus prescribed. Cinchona, every two hours, to obviate debility. On the seventh day, the voice returned feebly; eleventh, clear by intervals. From this time the patient gradually recovered.

Observations on the Effects of Cubebs in Gonorrhœa. By J. Crawford.—(From the English*.)

Description of a monstrous Fœtus. By Dr. Suchet.—In this curious case, the head of the monster is sugar-loaf shaped; neck disproportionately long; thorax depressed anteriorly, projecting posteriorly; right arm shorter than the left; no genital organs; umbilicus naturally situated; a large irregular tubercle in the centre of the sacrum; no anus, or lower extremities; the sacral vertebræ articulating with others, which became successively smaller, form a tail-like appendix, curved at the extremity, from behind anteriorly; cerebral, thoracic, and abdominal organs natural; descending colon terminates in an oblong pouch, obliquely situated between the spine and lumbar region, and covering the left kidney; ureters lost in passing before the psoæ muscles. No trace of uterus, testes, or urinary bladder, discoverable. Outline of the monster represented by a coarse engraving.

* Edinburgh Medical and Surgical Journal, Jan. 1818.

Analysis of several Concretions found in the Aorta of a Female. By M. Lassaigne.—The interior of the vessel here examined exhibited a circular layer of minute concretions. On chemical analysis, they were found to consist of—

Mucous animal matter	50
Phosphate of lime	47½
Carbonate of lime	2
Sulphate of lime, a trace.....	0

99½

Prize proposed by the Royal Academy of Sciences at Berlin. The Prussian government has ordered the Academy to propose as the subject of a prize of three hundred ducats:—
“The best explanation of the phenomena of animal magnetism, and of the experiments hitherto made, divesting them of the marvellous, with which they have been interlarded.” The memoirs, written in Latin, German, or French, are to be forwarded to the Academy before the 3d of August of the present year.

DECEMBER. *Galvanic Experiments on the Body of a Criminal, &c.* By Dr. Ure.—(From the English*.)

Case of Morbid Occlusion of the Uterine Orifice during Parturition, and an Account of a sure and easy Mode of remedying it. By P. Moscati†.—Occlusion of the mouth of the uterus, total or partial, may be the result of congenital malformation, or of rupture or, other injury from the employment of instruments during labour, and consequent cicatrization. Such obstruction may also arise from a change of position of the uterus in pregnancy, and the impracticability of restoring to the cervix its natural direction. Baudeloque, in such a case, unable to replace the uterus, tried to form in it an artificial opening; but the woman died from inflammation. Lauverjeat, in another instance, was more fortunate: he incised the body of the uterus on the prominence announcing the situation of the head of the fœtus, and thus procured its expulsion. The woman got well; and, in two months after, the uterus resumed its natural situation. But the partial occlusion of the orifice from cicatrices, consequent on laborious labour, is the more frequent occurrence. Of this nature is the following case, detailed by Moscati. A woman, aged twenty-five, had been lacerated by imprudent application of the forceps. The uterine orifice was so much

* Journal of Science and the Arts, No. XII.

† Translated from a memoir presented to the Italian Society of Sciences.

contracted by the resulting cicatrix, as only to admit a fine probe. Pregnancy again ensued; and on the occurrence of labour, forty-eight hours' severe pain effected no sensible dilatation. Profiting by the recollection of a former unfortunate case*, Moscati was deterred from the usual mode of operating, and thought of another simple mean; which consisted in introducing a slightly curved *bistouri caché* into the uterine orifice, and making slight incisions round the whole circumference of the cervix, and thus enabling the orifice to yield to the necessary extent. The incisions, practised during the labour pains, caused no additional suffering. The uterine orifice, after the patient had reposed awhile, dilated circularly and uniformly; and the child and placenta were naturally expelled. Neither pain, hæmorrhage, nor fever followed, and the woman speedily recovered. Still the uterine mouth did not regain its habitual softness, but presented a hard circle; an inevitable effect of the cicatrization of the numerous incisions which had been inflicted. With a view of dilating the orifice, a wax bougie, gradually increased in diameter, was for one week introduced every day, till it could no longer be borne. Eleven months after, the woman again became pregnant, and it was necessary to have recourse a second time to the bistoury, to facilitate the process of parturition; but incisions, less deep than on the former occasion, were now requisite, and the operation was completely successful; as the woman, at the close of a third pregnancy, was delivered without any such assistance.

Case of Cesarean Operation, practised per Vaginem. By M. Grimm †.—In this case, wherein, from old cicatrizations in the vagina and os uteri, insuperable obstacles to the necessary dilatation in the process of parturition existed, the Accoucheur made an incision of one inch and a half in the right side of the womb, which it was afterwards necessary to dilate farther: and through this, by means of the forceps, the fœtus was extracted. At the entrance of the vagina, another contraction existed, and, previously to the extrication of the head, was divided by the bistoury of an assistant. The infant cried audibly while the thorax was yet engaged in the vagina. On the fourth day, some febrile symptoms were developed.—5th. Lochia suppressed; but milk abundantly secreted: constipation, with abdominal

* In this case, incision of the uterus, necessitated by occlusion of its orifice, terminated fatally. On dissection, it was found that the uterus had been ruptured to a great extent, in the direction of the angles of the incision, by the pressure of the head of the fœtus.

† From the *Belgic Journal of Medicine*, No. IV. 1819.

heat.—10th. Sero-purulent discharge, with abdominal tension, and sense of weight at the bottom of the pelvis.—20th. Borders of larger incision no longer swollen; smaller nearly healed. Woman left her bed.—25th. Fever, vomiting, abdominal pains, constipation, and discharge of blood, for some days, consequent on dietetic error. Removed by appropriate treatment. Convalescence.

Case of Spasmodic Asthma. By Dr. Colson.—This case is published with a view of controverting the opinion of some Physicians who admit not the existence of convulsive asthma independent on organic lesion. The subject of it, a gardener, of temperate habits, enjoyed health, with exception of slight lumbar pain, till the age of forty-five, when he sustained a dangerous attack of peripneumonia: from that time, frequently and suddenly seized, at night, with sense of pressure in upper and anterior part of thorax, accompanied with internal pain, necessitating the erect posture, and terminating completely, after short continuance, by mucous expectoration. Attacked, at six o'clock one November evening, 1817, with uneasiness resembling that of hunger; was relieved by a little brandy, and supped heartily. About nine o'clock, while in bed, severe constriction at the summit of the chest, and pain behind the sternum, followed by syncope: continued about three minutes, repeated eructations ensuing. Pulse frequent, but regular. Eleven: vomited what he had taken at supper, and again relieved from the anxiety which had recurred with diminished violence. Midnight: pulse natural; spoke cheerfully; a quarter of an hour afterwards, raised his head with an expression of pain, and instantly expired. Dissection. Left lung sound; right extensively adherent. Heart naturally sized, empty of blood, unusually soft in structure, and lacerable. Pericardium containing a little serum. Brain and abdominal viscera sound.

Case of Hydrocephalus, &c. By Dr. Read.—(From the English).

Case of Paralysis of the Vocal Organs and Limbs, cured by the Use of the Waters of Cauterets. By Dr. Camus.—A very absurd story; not worth transcription.

Case of Congenital Division of the Velum Palati and Uvula, cured by an Operation resembling that of Hare-Lip. By M. Roux.—This case is too interesting to be passed over in a concise or hasty manner. The subject of it was a young man, whose voice was greatly altered by the congenital malformation mentioned in the title. The two borders of the division were readily brought into contact; mouth large; and fauces not very irritable. The patient,

moreover, was very anxious to be relieved from his infirmity. Hence every thing favourable to the success of an operation. The young man being conveniently placed, and the mouth opened to the utmost, M. Roux passed three waxed threads, by means of a curved needle, and then drew them together, in order to bring in contact the two lips of the division, and thus determine accurately the extent of substance which it might be necessary to remove. Half a line of the velum palati and uvula was dexterously excised; the ligatures tied, and cut off very near the knots. Immediately after the operation, the voice assumed nearly the natural state. Perfect abstinence, and silence the most profound, were, for three days, observed. In a few days after, the cicatrization was complete; but the two divisions of the uvula were not in perfect opposition. One of them descended lower than the other; this it is the intention of the operator to remedy by excision. Although, observes the recorder of this novel process, the life of the patient was not endangered, the operation, which corrected in him the deformity of an organ whose integrity is so essential to the free exercise of speech and deglutition, deserves to be ranked with the happiest innovations whereby the empire of the healing art has been aggrandized.

Reply to M. Gauthier de Claubry. By Dr. Desruelles.—Angrily controversial*.

Necrological Notice of Dr. J. F. Coste.—Was born at Ville, department of the Ain, June 4th, 1741, and died Nov. 9th, 1819. He had spent 56 years in the army; and was considered as the Nestor of military medicine. He was the author of thirteen different memoirs and other works on medicine and physiology. We have not room to transcribe their several titles; nor are they of sufficient importance to demand it.

MEDICAL REVIEW, HISTORICAL AND PHILOSOPHICAL,

Of this new French Quarterly Journal, the publication of which was recently announced by us†, we have just received the first number, accompanied by a very gentlemanly and

* There are three notices of prizes adjudged by the Faculty of Medicine of Paris, and proposed by the Societies of Bourdeaux and Montpellier, which offer nothing interesting.

† REPOSITORY, present Volume, page 33.—The Editors' names are Bally, Bellanger, Benard, Bestien, Bousquet, Delpech, Desportes, Double, Dunal, Esquirol, Gasc, Giraudy, Jadicux, Laurent, Nicod, Prunelle, Rouget. Bellanger, Bousquet, and Rouget, are the three conducting Editors.

obliging letter from M. Rouzet, one of the principal editors. It consists of an Introduction, occupying eight pages; a Preliminary Discourse, by M. Prunelle, *on the influence of medicine upon the population of States*, sixty-four pages; Analytical Review*, one hundred and thirty-eight pages; and Memoirs and Cases, fifty-eight pages; making a total of two hundred and sixty-eight pages, octavo.—The articles in the second division, which alone comes within our plan, are only two: *A Memoir on Fistula Lachrymalis*, by M. Nicod; and *Researches on the internal Orifice of the Fistula Ani, and on the parts in the substance of which these ulcers are seated*. An analysis of them would obviously be out of place in a retrospect of the literature of the past year. They will be fully noticed in our July Number†.

* Four important works are very fully analysed in this department: Laennec on Diagnosis; Brodie on Diseases of the Joints; Portal's Memoirs on several diseases; and Jones on Hæmorrhage.

† Although the notice of this work be somewhat inconsistent with our present plan, we could not resist the temptation of introducing it, and thus complying with the request of our much esteemed correspondent. The work will be regularly received by Messrs. Underwoods, Publishers of the REPOSITORY.—FOR. EDIT.

PART V.

MEDICAL AND PHYSICAL INTELLIGENCE.

LONDON MEDICAL SOCIETY, BOLT COURT.—It is with the highest satisfaction that we announce the flourishing condition of the London Medical Society. The accession of strength, both in point of talent and respectability, which it has recently gained, is highly gratifying to all those who take a particular interest in its prosperity and welfare. It has not, for many years past, had to boast of such an anniversary as that of the 8th of March, of the present year; and its weekly meetings are now conducted with a spirit, and energy, and harmony, which prove that the society has not yet passed its *Augustan period*. To its present president, Dr. Clutterbuck, much is due; but, indeed, every officer and every member seems actuated by that *esprit de corps*, and ardour in the pursuit of science, which must necessarily constitute a sure guarantee for the society's increasing prosperity and usefulness.

The following is the list of officers and council for the year 1820.

President.—Dr. Clutterbuck.

Vice-Presidents.—Dr. Uwins; Dr. Blegborough; W. Norris, Esq.; John Abernethy, Esq.

Treasurer.—John Andree, Esq.

Librarian.—Dr. Hancock.

Secretaries.—Dr. Uwins; Thomas Calloway, Esq.

Secretary for Foreign Correspondence.—Henry Blegborough, Esq.
Council.—Dr. Babington; Dr. Walshman; Dr. Merriman; Dr. Pinckard;
 Dr. Copland; Dr. Blicke; Dr. Furnival; Dr. Ley; Mr. Johnson;
 Mr. Hooper; Mr. Lowdell; Mr. Bartlett; Mr. Leatham; Mr. Leese;
 Mr. Sutcliffe; Mr. Drysdale; Mr. Pettigrew; T. Bryant; Mr. Dunlap;
 Mr. Hilliard; Mr. Harris; Mr. Shephard; Mr. Tarratt; Mr. Burrows;
 Mr. Ollier; Mr. Wigan; Mr. Morley; Mr. Good; Mr. Wray; Mr. Brown.
Chairmen of the Council.—Dr. Walshman; T. J. Pettigrew, Esq.
Library Committee.—Dr. Walshman; Dr. Copland; Dr. Furnival;
 E. Sutcliffe, Esq.; T. J. Pettigrew, Esq.
To deliver the Anniversary Oration, 1821.—T. Calloway, Esq.
Registrar and Sub-Librarian.—James Field.

HUNTERIAN SOCIETY.—The first Annual Meeting of this Society was held at the King's Head, Poultry, on the 10th February; Sir William Blizard in the chair.

From the report made by the Secretary, it appeared that there had been a considerable accession of ordinary and corresponding Members; that many interesting communications had been made to the Society, and that the balance in the Treasurer's hands amounted to £66. 4s. 11d.

Liberal donations of books have been received from Dr. Johnson, Dr. Uwins, Dr. Nichols, Sir William Blizard, and others.

The following gentlemen are elected officers for the ensuing year:—

President.—Sir William Blizard, F. R. S.

Vice-Presidents.—James Hamilton, M. D.; John Meyer, M. D.; Benjamin Robinson, M. D.; Lewis Leese, Esq.

Secretaries.—John T. Conquest, M. D. F. L. S.; William Cooke, Esq.

Council.—Thomas Bell, Esq., F. L. S.; Isaac Buxton, M. D.; Thomas Callaway, Esq.; W. D. Cordell, Esq.; R. Dunglison, Esq.; John Dunston, Esq., F. L. S.; H. Greenwood, Esq.; William Kingdon, Esq.; Charles Meeres, Esq.; James Miles, Esq.; Benjamin Pierce, M. D.; Henry R. Salmon, Esq.

Communications on Medical and Physical topics, addressed to the Secretaries, No. 10, St. Mary Axe, will be thankfully received.

Prospectus of a Course of Lectures on Anatomy and Physiology.

THE design in this Course is to convey a knowledge of Anatomy, Physiology, and Pathology, by uniting the regularity of Lectures with the more useful mode of familiar demonstration.

The rudiments of Anatomy will be first explained; and afterwards, while the Students are engaged in Dissections, the structure and relative connexions of parts will be pointed out, and the circumstances of most importance, especially, impressed upon the mind. It is hoped that thus more information will be obtained than can be done with facility in the great Dissecting Rooms of the Metropolis, which are so crowded, that minute and individual attention can seldom be given, from the never-ceasing claims on the time and patience of the demonstrator.

When the Anatomy of the various systems shall have been sufficiently understood, their functions will be considered; and lastly, the Morbid Derangements to which they are liable: and as the clearest ideas are communicated by distinctly presenting the most essential points, the Physiological and Pathological Discussions, instead of being encumbered by vague conjectures, will chiefly consist in an exhibition of acknowledged facts.

Effectually to refresh the recollection, two Examinations will be held every week, upon the subjects previously investigated. The Dissections of

the Students will be carefully overlooked, and the particular views of each individual forwarded as far as possible by private examination.

By pursuing this plan, it is hoped that every Student will acquire not only a competent knowledge of Anatomy, but will likewise be enabled, by connecting it with Physiology and Pathology, to apply that knowledge to the great purposes of practice, which ought to be the object of all professional education.

Three Courses are given during the year, beginning in October, January, and May, by Mr. Edward Grainger, Jun., Member of the Royal College of Surgeons.

Terms, One Course, £3. 3s. — Two Courses, £5. 5s. — Perpetual, £8. 8s.

Gentlemen who have entered to other Dissecting Rooms may become perpetual by paying £5. 5s.

A few Gentlemen are received as House Pupils. From the vicinity to the Hospitals, they are enabled to attend them and the different Lectures with perfect facility.

The Summer Course will commence the latter end of May; due notice will be given of the particular day.

For particulars apply to Mr. Grainger, 18, St. Saviour's Churchyard, Borough.

IN the CITY OF LONDON LYING-IN CHARITY, for delivering poor married Women at their own Habitations, conducted by Mr. Thomas Greening, of Aldersgate Street, the number of applications during the last Quarter was 106, the number of deliveries 87. Of these the natural labours were 83; two preternatural, in one of which the feet presented; the other was a presentation of the breech. The remainder was a case of twins, one instrumental, in which the delivery was completed by the forceps, the pains having ceased. The children were 43 males, and 40 females. During this Quarter the women have generally had good recoveries.

Mr. Greening, who has forwarded the above statement, proposes to continue it Quarterly, with remarks on the cases which may occur of an extraordinary nature.

TO THE EDITORS OF THE LONDON MEDICAL REPOSITORY.

GENTLEMEN,—Projects in medicine would not be worthy of the name, and less of that of *curative methods*, if we were not certain of the first action at least taking place as presupposed. It is a great step toward the probability of the successive action, the verification of the initial movement. It is for this reason that I wished to ascertain the possibility of galvanic discharges all along the metallic tube, which, in the *reanimating project* lately published by me, was supposed to be pushed through the gullet to the bottom of the stomach. Entirely metallic was the flexible tube, when I fortunately determined discharges from the pensile galvanic pile, across the breast, then stomach, neck, and spine of a cat, in which the life had been artificially suspended. But there is a material difference between the length of the gullet in a man and in that animal; and even if the tube should be extremely flexible, it would be, perhaps, very difficult to introduce it into the stomach of a middle sized person. Add to this the danger of the rupture of such tubes, which was and is always a serious reason, that many respectable men of the art decline the adoption of shorter ones for the urethra, which, by the by, leads to the bladder, when the other channel leads to the stomach. I therefore turned my thoughts to some other substance, which, formed into a tube, would be flexible as required by the very curve to be described in the human body; and by the form and dimensions of an easily transportable medical chest, and which, at the same time, would be of sufficient elasticity to prevent the collapsing sides of the gullet to obstruct it. It would not

be afterwards of great difficulty to insert all along the tube, a metallic spiral wire not exceeding the surface, which would yield to all its movements. It did not appear very easy to the most distinguished artists of this metropolis to form such a tube in gum elastic; a substance which naturally presented itself to the idea as having been used before in similar cases for injecting liquids into the stomach, notwithstanding they were very far from answering completely the intended end on account of their shortness: and, notwithstanding the possibility of reducing the length to twenty-two inches, (the least that can be adopted for general application, and, perhaps, too little for some cases of extraordinarily tall people) they were not sure of the result when they were told to add the metallic wire outside. I, however, was not entirely satisfied with the substitution of this substance to the flexible metallic tube; first, because the new tubes would be less liable to be bent as required; secondly, on account of their being easily damaged when of considerable diameter, (and indeed the original price would have been large enough even without the expenses of reparation); and lastly, from the necessity of an additional tube to the globe of the œther for attaching it conveniently to the other. But, upon farther consideration, I recollected another substance perhaps more fit for the purpose; I mean the *Russian leather*. I had seen pipes of tobacco furnished with light tubes of that article. They were flexible and elastic enough for the smoke to pass through them; and being so cheap, and not requiring reparation, they would be very well calculated for completing an instrumental chest, for cases of suspended animation, which might happen as well at sea and on the river, as in every town and village. Besides, nothing can be more easy than the insertion of the metallic wire on their rough external surface to the most commodious extent for the application of the conductor of the pile; and nothing can prevent their being brought to the length of three feet, for the convenient position of the attached globe of œther, on the one or the other of the receptacles practised at the shoulder of the chair; or all along the arm of wood moveable all around them, and fit for becoming legs of the same when finally changed into a bed. The section of the tubes should not be much larger than that of the former gullet gum elastic tubes, which was nearly of three-eighths of an inch. It will then, certainly, prevent any admission of air into the stomach and appendages. Too large a diameter not only would be superfluous for preventing the air to be pushed down the stomach, and unnecessary for putting everywhere in contact with the collapsing gullet the spiral metallic wire, but might be prejudicial to the free passage of the air into the lungs; as I have seen in many instances not very large pieces of sponge pushed through the gullet diminish the diameter of the windpipe, by forcing the posterior part of that channel where it is only membranous, towards the opposite one till it had sometimes entirely closed the passage. But I was much pleased to observe in the same experiments, that whatever could be the substance shutting and extending the pharynx, they were never able to shut the *rima glottidis* from back to the front; notwithstanding they could diminish it a little, because there will be no inconvenience in adopting, if necessary, the elastic regulator for introducing the gullet tube for better closing the pharynx, and for bringing at its very place beyond and down the *epiglottis* the end of the annexed regulator for the larynx tube. The *epiglottis* in many corpses appears more like a prominent line than a veil able to cover the *glottis* in its full depression; but should it be of the greatest size, it will never present an obstacle to the regulator, if the tongue be drawn forward.

(To be continued.)

A METEOROLOGICAL TABLE,

From 21st of FEBRUARY, to 20th of MARCH 1820,

KEPT AT RICHMOND, YORKSHIRE.

D.	Barometer.		Therm.		Rain Gauge.	Winds.	Weather.	
	Max.	Min.	Max	Min.				
21	29	57	29	47	36	33	58 NE.E.	13 Cloud... 2 Sn. 4 Rain...
22	29	50	29	30	39	34	N.	1 Mist..
23	29	24	29	14	41	35	33 NbW.	1 Show. of rain.. 4 Rain...
24	29	30	29	28	38	30	15 NW...	1 Sho. of rain.. & Snow..
25	29	30	29	69	38	32	06 N...NE...	1 Sh. of Sn. 2 S. & Sh. of Sn.
26	29	94	29	92	36	30	02 E..	1 Sh. of Sn. 2 S. 34 Cloud...
27	29	87	29	75	36	27	EbN.	1 Sun..
28	29	58	29	40	36	26	W. Vble.	1 Sun....
29	29	08	29	05	37	31	Melt.S. SW...	1 Sun.. 2 Cloud...
1	28	91	28	84	37	27	80 NW..	1 Sun.... 3 Cl.. 4 Snow....
2	29	45	29	28	34	24	09 NW...	13 Sun.... 2 Sn. 4 Moon...
3	29	64	29	64	31	25	NW..	1 Sun...
4	29	91	29	78	34	26	07 SW.	1 Cloud... 2 Sn. 4 Moon..
5	29	97	29	90	36	26	NW.NE.	1 Sun...
6	29	85	29	81	36	28	12 NW.	1 Sun... 4 Snow..
7	29	92	29	84	38	30	NW..	1 Sun....
8	29	78	29	66	41	34	W.SW.	1 Sun..
9	29	55	29	42	43	33	SW...	1 Sun..
10	29	33	29	29	38	31	SSW..	1 Sun..
11	29	29	29	23	41	34	SE..	1 Sun..
12	29	23	29	23	40	32	SE.	1 Sun..
13	29	53	29	46	40	32	03 N.E.	1 Snow. 2 Sun.. 4 Cloud..
14	29	80	29	73	46	38	SW..	1 Cloud.. 3 Sun.. 4 Starl...
15	29	94	29	91	50	37	W.	1 Sun...
16	29	97	29	92	48	39	SW.	1 Sun...
17	30	04	30	04	50	32	SW.N..	1 Sun.. 4 Starl....
18	30	01	29	95	49	36	N.	1 Sun.. 2 Cloud...
19	29	95	29	88	48	29	N.NE.	1 Sun...
20	29	82	29	71	50	33	NW..	1 Sun...

The quantity of rain during the month of February was 2 inches 30-100ths.

Observations on Diseases at Richmond.

The disorders under treatment were, Abscessio, Anasarca, Catarrhus, Colica, Cynanche tonsillaris, Diarrhoea, Dyspepsia, Encuresis, Epistaxis, Febris catarrhalis, Febris simplex, Gastrodynia, Obstipatio, Odontalgia, Palpitatio, Paronychia, Phthisis pulmonalis, Rheumatismus, Scabies, Scarlatina anginosa, and Scrofula.

THE METEOROLOGICAL JOURNAL,

From the 20th of FEBRUARY to the 19th of MARCH, 1820,

By Messrs. HARRIS and Co.

Mathematical Instrument Makers, 50, High Holborn.

D.	Moon	Rain.	Therm.	Barom.	De Lac's Hygrom.		Winds.		Atmo. Variation.		
					Dry.	Damp.					
20	D		34 33 31	29 87 29 96		14 14	S	E	Sn.	Sn.	Clo.
21			32 35 35	29 90 29 80		14 20	SSE	NE	Fine	Clo.	Sleet
22		,07	38 45 41	29 80 29 80		24 26	NE	E	Rain	Sleet	Clo.
23		,10	47 49 39	29 61 29 55		27 24	S	S	Clo.	Rain	Sleet
24		,06	41 44 37	29 50 29 44		21 22	WSW	N	Clo.	Rain	Sleet
25		,02	39 40 34	29 50 29 70		19 16	NEN	ENE	Fine	Sleet	Rain
26			35 36 31	29 96 30 12		15 13	ENE	E	Clo.	Fine	Fine
27			36 36 30	30 13 30 10		11 12	ENE	NE	Fine	Clo.	Fine
28			33 36 29	30 02 29 95		13 13	E	E	Fine	—	—
29	☉		32 42 38	29 90 29 69		13 13	SSW	WSW	Fog	Fine	—
1			42 44 33	29 53 29 57		13 12	NNW	WNW	Clo.	Fine	Clo.
2		04	34 37 29	29 00 29 48		11 10	N	N	Sn.	Clo.	Sn.
3			34 36 28	29 76 29 95		9 10	N	NNE	Fine	—	sm.s.
4			31 36 27	50 03 30 04		10 9	N	NE	Fine	—	—
5			36 36 28	30 20 30 25		8 9	ENE	NE	Fine	—	—
6			34 36 27	30 19 30 20		9 8	ENE	E	Clo.	Fine	—
7	☾	,03	35 36 34	30 19 30 14		8 10	NNE	N	Fine	Sn.	Clo.
8			36 38 31	30 26 30 26		13 13	NE	ESE	Fine	—	Clo.
9			36 40 34	30 20 30 08		12 13	WSW	SW	Fog	Fine	—
10			38 43 32	29 86 29 72		12 12	S	S	Fine	—	—
11			35 50 34	29 66 29 60		13 12	SE	ESE	Fog	Fine	Clo.
12		,12	36 44 38	29 50 29 46		12 13	ESE	ESE	Fine	—	Sleet
13			45 47 39	29 70 29 90		13 14	SW	NW	Fine	—	Fog
14	D		47 52 49	30 10 30 20		16 18	SW	WSW	Fine	Clo.	Fine
15			56 58 48	30 28 30 29		19 18	WNW	ESE	Fine	—	—
16			56 58 37	30 37 30 35		17 15	ESE	E	Clo.	Fine	—
17		,01	45 52 38	30 27 30 29		14 12	N	NE	Sleet	Fine	—
18			42 48 38	30 29 30 31		10 10	NE	NNE	Fine	—	—
19			44 46 37	30 24 30 25		9 9	NE	E	Clo.	—	—

The Quantity of Rain fallen in February is 80-100ths of an Inch.

A REGISTER OF DISEASES

Between FEBRUARY 20th and MARCH 19th, 1820.

DISEASES.	Total.	Fatal.	DISEASES.	Total.	Fatal.
Abortio	9		Febris <i>Synocha</i>	2	
Abscessio	11	1	— <i>Typhus mitior</i>	2	
Amenorrhœa	10		— <i>Synochus</i>	21	1
Amentia	1		— <i>Puerpera</i>	2	1
Anasarca	19	1	— <i>Remit. Infant.</i> ..	12	
Aneurisina	1		Fistula	4	
Angina Pectoris	1		Fungus	1	
Aphtha <i>lactentium</i>	6		Furunculus	5	
Apoplexia	5	3	Gastritis	1	
Ascites	9	2	Gastrodynia	12	
Asthœnia	12		Gonorrhœa <i>pura</i>	8	
Asthma	70	10	Hæmatemesis	4	
Atrophia	1		Hæmaturia	1	
Bronchitis <i>acuta</i>	7		Hæmoptœ	7	
— <i>chronica</i>	16	2	Hæmorrhœis	13	
Cancer	3	1	Hemiplegia	4	
Carbunculus	3		Hepatalgia	2	
Cardialgia	7		Hepatitis	17	1
Carditis	6		Hernia	4	
Catarrhus	96		Herpes <i>Zoster</i>	1	
Cephalalgia	37		— <i>præputialis</i>	2	
Cephalæa	4		Hydrocele	1	
Chlorosis	4		Hydrocephalus	7	1
Chorea	5		Hydrothorax	2	1
Cholera	2		Hysteralgia	1	
Colica	5		Hysteria	9	
— <i>Pictonum</i>	1		Icterus	5	
Convulsio	5		Ischias	1	
Cynanche <i>Tonsillaris</i> ..	19		Ischuria	3	
— <i>Trachealis</i>	1		Lepa	1	
— <i>Parotidea</i>	7		Leucorrhœa	8	
— <i>Laryngea</i>	1		Lichen <i>simplex</i>	1	
Delirium <i>Tremens</i>	1		Mania	2	
Diarrhœa	30	2	Melancholia	2	
Dolor latêris	4		Menorrhagia	17	
Dysenteria	6		Morbi Infantiles*	46	1
Dyspepsia	37		— <i>Biliosi</i> *	23	
Dyspnœa	9		Nephritis	3	
Dysuria	2		Obstipatio	6	
Ecthyma	5		Odontalgia	18	
Eczema	1		Ophthalmia	19	
Enteritis	3		Otalgia	1	
Entrodynia	3		Palpitatio	3	
Epilepsia	6		Paralysis	9	1
Epistaxis	5		Paronychia	1	
Erysipelas	7		Pericarditis	1	
Erythema <i>læve</i>	1		Peripneumonia	13	
— <i>nodosum</i>	1		Peritonitis	10	
Febris <i>Intermittent</i>	10		Pernio	6	
— <i>catarrhalis</i>	18		Pertussis	26	

DISEASES.	Total.	Fatal.	DISEASES.	Total.	Fatal.
Phthisis Pulmonalis	37	16	Scarlatina <i>anginosa</i>	2	
Plethora	4		<i>maligna</i>	2	
Pleuritis	21		Scirrhus	2	
Pleurodyne	2		Scrofula	6	
Pneumonia	34	7	Spasmi	1	
Podagra	5		Splenitis	4	
Porrigio <i>larvælis</i>	1		Syncope	2	
<i>favosa</i>	5		Syphilis	16	
Prolapsus	2		Tabes Mesenterica	8	4
Prurigo <i>senilis</i>	2		Vaccinia	12	
Psoriasis <i>guttata</i>	2		Varicella	5	
<i>laveterata</i>	1		Variola	25	4
Pyrosis	4		Vermes	23	
Rheuma <i>acutus</i>	13		Vertigo	11	
<i>chronicus</i>	46		Urticaria <i>febrilis</i>	2	
Roseola	1		<i>tuberosa</i>	1	
Rubeola	4		Total of Cases	1284	
Scabies	78		Total of Deaths		60
Scarlatina <i>simplex</i>	2				

* *Morbi Infantiles* is meant to comprise those Disorders principally arising from dentition or indigestion, and which may be too trivial to enter under any distinct head; *Morbi Biliosi*, such Complaints as are popularly termed *bilious*, but cannot be accurately classed.

Observations on Prevailing Diseases.

PULMONARY AFFECTIONS of a catarrhal and inflammatory nature still continue prevalent. The month has been marked by very many instances of a combination or rapid succession of those complaints of irritation that are especially incident to early life, such as measles and whooping cough; and this complication of diseases has very frequently proved exceedingly intractable.

We still continue to be favoured by remarks on particular cases by our Correspondents, which we shall again present to our readers in their own words:—

Remarks by Mr. FURNIVAL.

FEB. 21st. — The Reporter was requested to visit a young woman, aged fifteen, of dark complexion, and extremely plethoric appearance: she had menstruated during two years, and her last period had passed about twelve days previous: she complained of pain in her side, placing her hand on the abdominal integuments between the gusta of the ilium and the last rib: she described this pain to have existed occasionally for a month, but had much increased during the preceding ten days; she also complained of frequent fainting, (accompanied by a general sense of heat and flushed countenance.) The family was alarmed at the rapid succession of the fits, as they had greatly increased in frequency for two days, and now attacked her every second hour. A Practitioner who had seen her during the last week, had exhibited cathartics, antispasmodics, and blistered the pained part, without the least abatement of the symptoms. In the interval between the attack of the paroxysms she appeared well, excepting the heavy pain in her side. She could eat hearty, and go about her occupations apparently as well as before her illness. Pulse 64 beats in a minute. The treatment adopted was venesection to fourteen ounces, and a diaphoretic draught every third hour, composed of camphora mixtura lig. am. acet. et spt. æth. nitros.

22d. — Profuse perspiration the whole night; little sleep; pulse 76; and

only twice attacked with syncope. Appearance of the blood: crassamentum very firm, and, in proportion to the serum, as eight to ten; no buff. Venesection to sixteen ounces, which was borne very well and without the paroxysm of fainting, in which she remained three hours the day before: solution of sulphate of magnesia in infusion of senna, to promote copious evacuations from the bowels.

23d. — No fainting since the last bleeding; purgative operated very well; pain in the side relieved; slight pulsating pain in the head; great disposition to laugh at every thing: appearance of the blood nearly as before; pulse 94; venesection to sixteen ounces repeated; saline draught every third hour.

24th. — At noon was attacked with violent pain in the head, which kept her in a comatose state for an hour and a half; countenance much flushed; appearance of the crassamentum in the blood much altered; its proportion not so great; pulse 90, and soft. A Physician saw her with the Reporter, and advised all active treatment to be suspended: saline draught as before; aperient powder every morning. At nine P. M. was sent for, as she had been an hour and a half in violent convulsions: on seeing her soon afterwards, she complained of intense pain in the head; intolerance of the light of a candle; no alteration in the pupil; pulse hard, and 110; and great restlessness; continually seeking something in the bed; but perfectly rational in her replies. Venesection to twenty ounces; a blister to the nucha; and twelve grains of hydrarg. submurias, with three of pulv. antimonialis; pediluvium.

25th. — Ten A. M. No return of convulsion; pain in the head not so intense; pulse sunk to 96, and softer; during the night had a slight appearance of the menstrual discharge; bowels once relaxed; intense vomiting of bilious matter in great quantities. Infus. sennæ c. magnesiæ sulph. and an enema of water gruel with half an ounce of ol. ricini every sixth hour. Eight leeches to the temples. — Eleven P. M. Every symptom much relieved.

26th. — Ten A. M. Progressively amended; leeches bled profusely; bowels freely evacuated; no sickness; had a few hours' sleep; complains of slight headach; menstrual discharge during the whole night. — Seven P. M. Pulse 100; headach increased; six leeches to the temples repeated; saline draughts as before.

27th. — Much better; pulse at 80; leeches repeated, conjoined with the other remedies.

28th. — Becoming gradually convalescent, although the pulse still keeps up; disposition great, at intervals to headach; leeches repeated to the temples, and four applied to the feet; pediluvia immediately afterwards: cold bathing with equal parts of vinegar and water to the scalp; saline medicines.

29th. — Pulse lowered to 76; much better; the cold bathing to the shaved scalp, and aperients twice a day, in about a week terminated this case and restored her to perfect health.

Since treating the above case, the Reporter has met with another nearly similar, but which sooner yielded to the depletory plan.

In remarking on the foregoing case, it may not be improper to point out the great obscurity by which the disease was enveloped at first; and although it subsequently proved itself to be completely hysterical, yet the absence of the globus hystericus, the spasmodic contractions of the body and limbs in the fits, dejection of spirits, and the other attendant symptoms for the first two days, prevented its real nature being evinced: so well did she appear between the periods of syncope, that one medical gentleman thought there was little the matter with her, and she being a servant, attributed the symptoms to be generated by evil disposition towards doing her duty; another replied, in answer to a question as to the propriety of bleeding, that her pulse was so very feeble and slow, it might cost her life; and, as will be

observed by the Report, the first abstraction produced syncope, which lasted nearly four hours : but it is worth remarking, how gradually the pulse increased in volume and frequency after each venesection. When the cerebral symptoms came on, she appeared in a most critical state, and it is probable her recovery would not have been so certain, had not Nature been assisted by a slight determination to the uterus, which, from the menses having appeared but twelve days before, was quite unexpected : of course the injections at that time were exhibited with the hope of more fully promoting the menstrual flux.

Remarks by Mr. GAITSKELL.

I AM sorry to report two cases of puerperal fever, and am much concerned to be informed that this afflicting disease prevails in many parts of this metropolis ; and, in several instances, have proved fatal.

The fatal case I have now the misfortune to announce, is that of a woman, forty years of age, and the mother of twelve children. She had an easy natural labour. The placenta separated in twenty minutes, by the uterine contraction, and for the first forty-eight hours every thing appeared to go on favourably. At this period rigors came on, with acute pain in the head, followed by a violent febrile paroxysm, and great abdominal tenderness. Notwithstanding copious, general, and local bleeding, and large alvine evacuations, she expired on the fifth day after delivery.

The lochial discharge was scanty ; and the mamma failed to secrete milk.

Remarks by Mr. PARKINSON.

THE cold of this month, particularly in the early part of it, proved fatal to several who were suffering under *bronchitis chronica*, and who were rather advanced in years. Pneumonic inflammation has also been comparatively frequent, even among the aged ; but has yielded to the ordinary treatment, of bleeding, &c., when had recourse to sufficiently early. Not a single case of infectious fever has occurred during the whole month.

MONTHLY CATALOGUE OF BOOKS.

Medical Notes on Climates, Diseases, Hospitals, and Medical Schools in France, Italy, and Switzerland ; comprising an Inquiry into the Effects of a Residence in the South of Enrope in Cases of Pulmonary Consumption, and illustrating the present State of Medicine in those Countries. By James Clark, M.D. 8vo.

The Mother's Medical Assistant ; containing Instructions for the Prevention and Treatment of the Diseases of Infants and Children. By Sir Arthur Clarke, M.D. 12mo.

A Treatise on the Nature of Scrofula. By W. Farr. 8vo.

A History of the Epidemic Fever which prevailed in Bristol during the Years 1817, 1818, and 1819 ; founded on Reports of St. Peter's Hospital, and the Bristol Infirmary. By J. C. Prichard, M.D. 8vo.

A New System of Shoeing Horses ; with an Account of the Various Modes practised by different Nations ; with Observations on the Diseases of the Feet, connected with Shoeing. By Joseph Goodwin, Veterinary Surgeon to his Majesty. 8vo.

Observations on the Nature and Cure of Glandular Diseases, especially those denominated Cancer, and the too frequent Use of Mercury, &c. &c. &c. By Charles Aldis, Member of the Royal College of Surgeons. 8vo.

Elements of Natural History. By C. Stewart. Second Edition. 2 vols 8vo.

NOTICES TO CORRESPONDENTS.

Communications for the original correspondence department have been received this month from Dr. Cole, Dr. Williams, Dr. Gordon Smith, Dr. Palmer, Mr. Davies, Mr. Price, (by the hands of Mr. Davies), Mr. Sutcliffe, Mr. Rose, Mr. Halliday, Mr. Ingleby, (by the hands of Dr. Palmer), Mr. Shovelle, Mr. Wansbrough, Cuniculus, and S. S.

We should wish to be favoured with the names of the two last Correspondents.

It is with much pleasure that we have to announce the receipt from the first-named gentleman, (Dr. Cole, Surgeon to the Forces,) a series of very interesting papers on the following subjects: — Inguinal aneurism successfully treated by placing a ligature on the external iliac artery: tying of the common carotid, in consequence of a complicated wound through the neck: on amputation of the shoulder joint: and on injuries of the head:—Papers which shall appear as soon as possible in the above-named order.

The paper of Mr. Battley, on Colchicum, will be for a little time deferred, in consequence of that gentleman having recently been engaged in experiments on the poppy, which he tells us he has succeeded in decomposing.

Reviews are preparing for the next Number of the works of Dr. Paris, Dr. Haslam, Mr. Accum, Mr. Aldis, Sir W. Adams, and Mr. Guthrie.

**.* Communications are requested to be addressed (post paid) to Messrs. T. and G. UNDERWOOD, 32, Fleet Street.*

THE
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No. 77. MAY 1, 1820. Vol. XIII.

PART I.

ORIGINAL COMMUNICATIONS.

I.

A Case of Inguinal Aneurism, successfully treated by placing a Ligature on the External Iliac Artery. By J. COLE, M.D., Surgeon to the Forces.

Il faut l'avouer sans détour, la ligature de l'artère carotide primitive et celle de l'artère iliaque externe, sont incontestablement deux des plus belles conquêtes de la chirurgie moderne. — Roux, 271.

JAMES JONES, the subject of the following narrative, aged twenty-nine, five feet six inches high, well made, and very muscular, was received into the general hospital at Cambrai, on the 28th of July, 1817, on account of a tumour in the right groin, a deep-seated pain in the thigh, a numbness of the leg, and a considerable swelling of the whole limb. After a march of sixteen miles on the 14th of July, from Bahaume to the glacis of Cambrai, with the fifth regiment, in which he then served, his attention was directed to a pain and puffiness about the ankle-joint; some days after he noticed a tumour in the groin, which gradually enlarged, and had now attained the size of an egg: he was ordered to bed; thirty ounces of blood were taken from the arm, and a purgative given him.

The following morning, on a more minute examination, the tumour was found increased in size, and pulsating strongly,

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the bleeding was repeated, and a cold lotion applied to the limb. On the 30th, I visited him by desire of my friend, Dr. Eyre, Physician to the Forces, and convinced myself of the correctness of the opinion formed by Messrs. Booty and Bingham, as to the nature of the malady. The following day he was seen by Dr. Grant, the Inspector General, and by almost the whole of the medical officers of the town and neighbourhood, who agreed as to the disease and the plan of treatment. As the tumour was rapidly increasing, and had already extended itself above Poupart's ligament, and was rapidly increasing in size, an early recourse to the operation was recommended, and my performing it the following day determined on.

Jones, a native of the Welch mountains, in early life a labourer in the fields, had resisted the debilitating effects of a variety of climate, and the destructive habit of dram drinking, and still possessed an iron constitution. Phlegmatic, and gifted with a stoical fortitude, he was particularly well fitted to undergo a hazardous operation. On the 2d of August, therefore, in the presence of several professional friends, the patient being placed on a table in a horizontal position, with the legs supported by two assistants, I placed myself on his right side, with my back towards his face, and with a scalpel made an incision through the integuments nearly five inches in length, from the inner and upper part of the aneurismal tumour to within an inch of the anterior superior spinous process of the ilium, keeping above, but following the direction of Poupart's ligament, describing the segment of a considerable circle; the aponeurosis of the external oblique thus exposed, a similar incision was made through its fibres, as well as through the inferior margin of the internal oblique and transversalis, exposing the spermatic chord passing to the inner ring. The knife was now laid aside, and the cellular membrane divided by the fingers, until the artery could be distinctly felt; an absorbent gland obtruded itself, which being removed, the finger came in contact with a portion of the artery, apparently sound, but firmly united to the iliac vein; so firmly, indeed, that the separation was effected with great difficulty, by means of a blunt pointed probe and my finger: this close union, I conceive, was caused by adhesive inflammation, extending from the diseased portion of the artery up along its course.

After some labour, from the great depth of the wound, an aneurismal needle was passed under the artery, sufficiently to admit its eye being armed with a double ligature by means of a common crooked needle. The aneurismal needle was

then withdrawn, and the ligatures tied about three inches above the tumour at the same place, so as to act only as one*.

It was my intention to have tied the two ligatures at a distance from each other, and to have divided the artery between them, as I have done on a former occasion, when performing the same operation at Antwerp, on a guardsman, wounded at Waterloo: but from the stout and short figure of Jones, I found it impracticable, without a further division of the transversalis abdominis, and a consequent exposure of the peritoneum; I therefore abandoned my intention, and that the more readily, as the use of a single ligature had been ably advocated. The moment the knot was tied, the pulsation of the tumour ceased, the edges of the wound were brought together, and kept in contact by adhesive straps, assisted by a roller round the body and upper part of the thigh: the whole of the limb was wrapped in flannel, and the knee raised with pillows. Jones bore this tedious operation with all the sang froid of a man accustomed to meet death in various forms, and, stretched on his bed, indulged in the most favourable presentiments. The loss of blood during the operation was trifling; we should have taken some from the arm, but from the depletion he had already undergone: we were determined, however, to watch closely and attack vigorously any symptom of high action that might come on: an opiate was administered, and the lowest diet enjoined. In an hour the temperature of the limb was found considerably diminished, and soon afterwards the foot was as cold as marble. He complained of a distressing pain in the small of the back, which by some was attributed to the constrained position he was placed in during the operation, but which, I rather think, was the consequence of the irritation the anterior crural nerve had so lately undergone. In the evening, the limb was still cold, but free from pain. The patient was tranquil, and the pulse (86) had undergone no alteration either in frequency or force. The application of external heat was avoided.

3d. — The limb had nearly recovered its natural temperature, and the pain in the loins was no longer distressing.

* This case was read to the Society of Emulation at Cambrai, in September, 1817, and published with its transactions for that year. It has been since noticed in the "Dictionnaire des Sciences Médicales," under the word *ligature*, in the following manner: "le procédé de Monsieur Cole est différent de celui de ses compatriotes, qui n'emploient qu'un simple lien," although one object of my paper was to show the inutility of more than one.

Having had no alvine evacuation, an ounce of castor oil was prescribed, which having had the desired effect by the evening, an anodyne was given him.

4th.—Passed a comfortable night; pulse 90; tongue moist and clean; skin soft; the bowels again moved; the temperature of the limb appears higher than the other: in the evening the anodyne was repeated.

5th.—The size of the limb much as before the operation; its temperature evidently increased, but is neither painful nor benumbed; the bowels inactive, and the pulse 94; a brisk dose of castor oil was given, which having produced the desired effect, in the evening the opiate was repeated.

6th.—The temperature of the limb the same as the other, and its size lessened: the abdomen being free from pain, or even tenderness when pressed, induces us to believe that we need have no farther fears of peritoneal inflammation.

7th.—The dressings were removed: the wound looks well, and discharges a little healthy pus.

10th.—The aneurismal tumour has completely disappeared: the limb is fast recovering its natural size and appearance.

19th.—This morning the ligatures came away without any force being employed, except that caused by a gentle twist of them.

25th.—Continues doing well; the wound is healing fast; not a vestige of the tumour; and the limb in size and shape, temperature and sensibility, like the other.

Sept. 19th.—The powers of the limb quite restored; the wound all but cicatrized; and the general health improved: he was recommended to fill the first vacancy as an orderly, that he might continue under our observation, and be exempted from violent exertions.

In the month of February he was sent to his regiment, where he discharged all the duties of a private soldier as long as it remained in France, and shared in the grand reviews on several occasions. Assistant Staff Surgeon Booty, whose skilful aid during the operation, and humane attention afterward, I feel a pleasure in acknowledging, assured me that no pulsation could be discovered in any of the arteries of the extremity the last time that he examined him; that its powers were quite equal to the other; and I have since been informed, that he continued discharging all the duties of a private soldier, until discharged in consequence of a reduction in the establishment of the corps.

On a review of this case, we must be struck with the decision and simplicity in the practice of military hospitals, as well as the advantages to be derived from the possession

of a control, to which the patient has been accustomed cheerfully to submit. Jones's mind had not been tortured by a premature acquaintance with the dangerous precipice which he was rapidly approaching, nor agitated by vain efforts to retard the progress. As soon as it was determined on, the necessity of an operation was explained to him; but its importance, and the time it should take place, was not communicated until every thing was ready for its execution. Could my patient have traced back a long line of titled ancestors, or had he even the means that wealth alone bestows, much precious time would probably have been lost in essaying various means for his relief, in order that his heirs and successors might console themselves with the reflection that every thing had been tried, although thereby the essential step had been too long delayed. Who, I say, had Jones possessed those doubtful advantages of rank and fortune, would so early in the disease have recommended his immediately submitting to a painful and perilous operation? Who would have limited the previous treatment to simple depletion, and the subsequent to a few aperients and anodynes? In what other situation could the sparest diet and absolute rest have been so effectually enforced? The professional man will not only appreciate these things as they deserve, but he will see an additional reason for performing the operation, *whilst the springs of life are in full vigour*, and will remark, in so doing, how confidently he may rely on the wonderful powers of the anastomosing vessels. He will also perceive the inutility of more than one ligature, and the security to be derived from removing the artery as little as possible from its natural bed and connexions*.

As to the mode of operating, various opinions have existed, and will continue to exist: the plan I pursued is that taught and practised by my friend and preceptor, Mr. Astley Cooper, to whose well-earned reputation no eulogy of mine can add; preferring it to that recommended by the no less eminent Abernethy, on account of the peritoneum being less exposed, and therefore less likely to take on inflammatory action.

* It is worth observing how reluctant the Surgeons on the Continent were to give credit to the first successful operations of the kind; and when an accumulation of facts convinced them of the resources of Nature, and the power of the anastomosing vessels, how immediately they became alarmed on account of the "aneurismal diathesis;" in which case, exclaims Baron Larrey, "je demanderai de quelle utilité elle pourrait être." — Vol. iv. p. 353.

The mode, however, I consider as of much less consequence than its *early adoption*; and this I again inculcate, not only from knowing that procrastination presents itself under so many deceptive forms, whenever a certain risk is to be encountered, so as to mislead the most determined, but also because two eminent military Surgeons* of the present day have taught "that delay should be given for the enlargement of vessels;" a specious doctrine, founded on erroneous principles, and which must give way to the sounder opinion of my friend, Samuel Cooper, "that the sooner the artery is tied, the greater is the probability of success."

I may be allowed here to notice the extraordinary pretensions of the French Surgeons to a share in the glory due to those whose boldness first suggested, and dexterity executed the operation in question; although, from their own account, it was first attempted in France on the dead subject, in 1809, and a year after unsuccessfully on the living, at a time when Abernethy alone had performed it four times, beginning in 1797.

The following are the precise terms used by Leveille, Professeur de Chirurgie, &c., in his work on surgery, published at Paris in 1812. "Déjà Duret, Chirurgien en chef de l'hôpital principal à Brest, avoit pressenti la possibilité de lier l'iliaque externe; et le 15 Août, 1809, avant l'arrivée au journaux de Messieurs Corvisart et le Roux, (qui contient les détails de l'opération pratiquée par Astley Cooper,) ce Praticien avoit fait cette ligature avec une extrême facilité, *sur le cadavre*. Il fut réservé au digne émule de

* I should not particularize the opinions of those gentlemen, but for the high rank they deservedly hold in the Profession, and the extensive influence their united sentiments must have when advocating the cause of delay.

Mr. Guthrie, in a letter to a professional friend, regarding Collier's case at Bruxelles, uses the words in the text; and Mr. Hennen, when commenting on the same case, in his work on Military Surgery, declares, "that ample time should be given for the growth or enlargement of anastomosing and collateral vessels," leaving us, however, quite in the dark relative to the time deemed ample, since the very operation alluded to was performed seventy days after the injury was received; and since we know Pierre Chit submitted to it at Brest, in January 1810, for the cure of an inguinal aneurism of fourteen months' standing, and both failed in consequence of the circulation in the limb not being re-established.

The ligature on the descending aorta, by Mr. Astley Cooper, failed, in all probability, from the exhausted state of the patient, or, in other words, from that bold operation being too long delayed.

Monsieur Duret, à Monsieur Delaporte, de la pratiquer sur le nommé Click, 3 Janvier, 1810.

Il étoit nécessaire de préciser ces époques afin de prouver que la découverte appartient autant à la chirurgie Française qu'à la chirurgie Angloise, et que Monsieur Duret est le premier dans notre pays qui ait conçu la possibilité de cette opération, et l'ait exécutée sur le cadavre; et que Monsieur Delaporte est aussi le premier qui l'ait habilement pratiquée sur le vivant. The writer then adds with the utmost naïveté — Ce n'est pas la première fois que cette estimable concurrence s'est fait remarquer entre deux nations rivales par leur savoir.

II.

Common Carotid tied in consequence of a complicated Wound through the Neck, accompanied by Hæmorrhage. By J. COLE, M.D.

JAMES BESWICK, of the fourth regiment of foot, was admitted into the Minimines General Hospital at Antwerp, on the 27th of June, 1815, in consequence of a musket-wound received at the affair of Quatre Bras on the 16th. The ball entered at the inferior angle of the lower jaw on the right side, passed across the neck, and made its exit about an inch below the same angle on the opposite side: it was evident that in its passage the pharynx, larynx, and some arteries were wounded—that the inferior maxillary bone and os hyoides were fractured. The food escaped through the wound on the left side; the hæmorrhage had been occasionally profuse, and the voice was lost. Of his history, from the time of receiving the wound up to the present moment, I could learn nothing. The shoals that crowded our hospitals at this period, and the difficulty of making himself understood, sufficiently explains this circumstance. The morning after his admission, I was called to his bed-side, and found him covered with blood, which was flowing from his mouth, and filling vessel after vessel, almost as fast as they could be emptied. Tying the common carotid immediately suggested itself as the only step likely to prolong his life; I therefore determined on it. The patient, readily consenting to my proposition, was placed recumbent on a table, with his head gently inclined towards the right shoulder. I began by making an incision through the integuments along the inner margin of the sterno-clideo-mastoideus, about two inches and a half in length, terminating not more than an inch from the junction of the clavicle to the sternum: by

dividing some cellular membrane, the inner edge of the sterno-mastoid was raised and separated from the sterno-hyoideus; some fibres of the omo-hyoideus were then seen and cut through, and afterward the sheath, (then distinctly visible,) that contained the great vessels of the neck: some embarrassment arose (as in other instances) from the jugular vein presenting itself to the knife, alternately full and tense—empty and flaccid, according to the state of respiration; but I was more annoyed by the quiescent state of the vessel I was seeking, than by the obtrusive action of the jugular vein. I could scarcely feel the slightest action of the carotid with my finger; I could not discover the smallest motion in it when laid completely bare*: however, by carefully separating it from its connexions, and completely insulating it with the blunt point of a probe, from the par vagum and jugular vein, a double ligature was passed underneath it; and after ascertaining carefully that nothing but the carotid was under its command, a separation was made, and the two were tied, about three quarters of an inch apart: a section was immediately made through the intervening portion of the artery, nearly in a line with the cricoid cartilage†. The immediate retraction of the ends among the cellular membrane seemed to afford additional security; the edges of the wound were then brought into contact, and readily retained by a couple of adhesive straps. My patient lost scarcely any blood by the operation, nor a drop from the original wound after the ligature was made; yet, from previous fasting, fatigue, and hæmorrhages since the

* This reminds me of an observation of Dr. Parry: —“ That the ordinary tangible pulse is nothing more than an effort of a column of blood, of a certain diameter, to restore the area of a vessel artificially diminished by the pressure of the finger; and that we must not suppose the arteries to be dilated by the systole.” John Hunter likewise observed: “ That upon laying bare an artery no distention of the tube is apparent, and that the distention seems to take place in proportion as it is covered or compressed.” — Vide ABERNETHY'S *Physiological Lectures*, 240.

† In thus removing the tense state of the vessel and allowing the cut edges to recede at least half an inch, I thought additional security had been gained; but on reflecting that the first object can be attained by position, and that the second is counterbalanced by the injury arising from the removal of the artery from its bed and natural connexion, I am now inclined to prefer the single ligature: whether that should be a very fine one, and both ends of it cut off, I can scarcely venture to give an opinion, although I feel rather disposed to say yes.

wound was inflicted, he was removed to his bed in a very exhausted, though collected state.

29th. — Seems much revived; has passed a tranquil night; has lost no blood; nor is there any change manifested in his mental powers. Swallowing being extremely difficult, he is fed with milk and animal broths, through the medium of a gum-elastic tube passed into the œsophagus; an anodyne is mixed with his evening potion.

30th. — Seems improving, and gains strength; his respiration is a little oppressed, and the questions put to him by the assistants and occasional visitors are irksome.

July 1st. — His progress is satisfactory; he every day rallies; and, spite of the complicated injury he has sustained, we indulge in the expectation of his recovery.

2d. — Has passed a quiet night; pulse distinct, though small; continues to receive his food in the way mentioned without any difficulty.

Eleven P. M. — After some stertorous breathing, he so quietly sunk into the arms of death, that the nurse appointed to attend him for some time was not aware of it.

On examination, the ball was found to have fractured the right angle of the inferior maxillary bone, one of the cornua of the os hyoides, and to have wounded in its course the pharynx, larynx, and some large branches of the carotid.

The lungs were sound, but the bronchiæ and air cells were found choked with fetid pus, precisely of the same appearance and odour as that secreted by the surface of the original wound, and from which it might be traced down the trachea. We may remark, that the exquisite sensibility about the glottis, which so effectually guards the larynx against the intrusion of a drop of water, and which excites alarm if there be any unusual pungency even in the air, does not exist lower down; for Nature, who ever adapts her means to the end, and with that regard to economy which pervades all her works, did not bestow any extraordinary degree of sensibility on a part which did not require it, and where it would be more than superfluous*. The fetid pus, therefore, glided down the trachea, and loaded the lungs, without exciting any irritation, or causing any alarm. The function of respiration was gradually impaired, and ultimately destroyed. During his illness, a disinclination to speak, or rather whisper, (for his voice was lost,) was the most prominent symptom, produced probably by the increased sense of oppression experienced on attempting to inflate the lungs; and which

* Le larynx est beaucoup plus irritable que la trachée.—*Rapport sur le Croup.*

went on gradually increasing up to the moment of his death, which was caused, I consider, by suffocation, arising from the exclusion of atmospheric air: and though the term may be cavilled at, yet I feel as assured of its truth, as I am that a similar cause produces the extinction of life in an animal placed in the exhausted receiver of an air pump.

The right side of the heart, and vessels leading to it, were found distended with black blood; and that in the arterial system was unusually carbonized. This operation, therefore, performed under unfavourable circumstances, but yet such as rendered its performance unavoidable, succeeded, inasmuch as the hæmorrhage it was the object to restrain was restrained, not one drop of blood being lost after the ligatures were applied.

The intellectual faculties were unimpaired: indeed, I marvelled to find such a torrent of blood could be abruptly diverted from the great centre of all our sensation, with so little derangement to the system.

III.

On Colchicum. By W. H. WILLIAMS, M.D., of Ipswich,
Fellow of the Royal College of Physicians, London.

HAVING observed, in the REPOSITORY of this month, that Mr. Battley, to whom the medical world is much indebted for his exertions in pharmaceutical chemistry, has given notice of his intention to make a communication upon the subject of colchicum, I wish to state, that in the course of my inquiries into the properties of this plant, about two years since, when I published my observations on pretended specifics for gout, I ascertained that the medicinal powers are not confined to the root, but that they exist in the seed of the plant, the salutary qualities of which, in subduing painful diseases, *unconnected with gout or inflammation, especially of the viscera*, are scarcely to be imagined by those who have witnessed the capricious, and often violent, and even fatal effects of a concentrated infusion or tincture of the root.

With regard to the most eligible method of administering the seeds, (several pounds of which I obtained easily in this neighbourhood, during the two preceding years,) I need not here enter into any account, as I intend writing a paper for publication upon this subject at no distant period, the materials of which have been some time prepared, but for want of leisure, or rather, perhaps, the want of a few hours' exertion to arrange, have not yet been forwarded to their intended destination.

My paper will comprise reports of several inveterate cases of chronic rheumatism, which resisted every method of treatment usually tried in such diseases, but in which different preparations of the colchicum seeds were administered, with a degree of early relief and permanent cure not attainable, I believe, by any other medicine.

IV.

On Vaccination. By S. S.

HAVING lately been informed of several instances of individuals being attacked by small-pox after having gone through the cow-pox, and considered as safe, and finding that these cases are diligently circulated to influence the public mind, and to shake its confidence in favour of vaccination, and that also some professional gentlemen have become a little sceptical, I beg to offer a few observations on a subject of the utmost importance in the practice of vaccination, either as it concerns its efficacy or non-efficacy in securing the constitution against subsequent attacks of variolous contagion or infection — one which does not appear to have been sufficiently attended to, since we find it a more general source of failure than perhaps all the rest put together. That any circumstances likely to leave us liable to the influence of small-pox should be neglected, cannot but excite our surprise, when we consider that we have in our hands the means of staying the ravages of one of the greatest afflictions with which humanity has been visited.

It would be needless to say any thing of the protective power of the cow-pox against the small-pox, since we find that where it has been practised, the small-pox in some countries has almost totally disappeared, and in others, that it is greatly diminished. From the experiments which were made at the time of its introduction, and the very extensive experience for the last twenty years, there cannot exist, in the mind of any unprejudiced and disinterested person, the most trifling shade of doubt as to its efficacy.

The tribes of India, where the small-pox raged in its direst malignity, and swept away whole clans, scarcely now know (comparatively speaking) that it exists.

In Denmark, where the legislature has not only made laws to punish the propagators of the small-pox, but put them rigidly in force, and rewarded those who diligently seek to

destroy it by the careful practice of vaccination, the government has had the happiness to see it extirpated from its dominions*.

In France, where the strictest attention to the extermination of the small-pox is observed, we scarcely see an instance of its occurrence; and when it does, severe penalties are inflicted upon those persons in whose family it is present, if it can be proved, upon investigation, that it may be attributed to any neglect on their part of not having taken the proper precaution, by the previous vaccination of their children.

In England, I will venture to affirm that less zeal is generally evinced for the eradication of the small-pox than in any other country; and the evidence is clear, for we have more small-pox, in proportion to our population, than any other country. Whether this may be the consequence of prejudice in the minds of the community, or a little slackness in the Profession to convince them of the advantage and safety of the one, and the danger and misfortune of the other, I will not take upon me to say, but proceed to notice the cause which we may assign, why the cow-pox has, in some instances, failed in duly impressing the system, so as to render it insusceptible of receiving the variolous infection.

It is well known that numerous cases are upon record in which the small-pox has recurred in the same individual, after a lapse of some years; and there is scarcely any Practitioner, of long and extensive practice, who cannot furnish from his own experience similar examples; but in general the first impression destroys the susceptibility of the constitution to be again influenced in such a way as to produce the disease in a palpable form: this is a law of some diseases which we cannot explain. The same is observed with cow-pox. When this irregularity shows itself, we should inquire into the history of the case, and endeavour to find out whether the disease went through its course regularly, and attended with its usual symptoms, or whether any obstructing impediment existed at the time of exposure to it, to prevent its entrance into the system. Some constitutions have resisted altogether the action of the small-pox, without any other assignable reason, than that they were, from peculiarity, insusceptible.

The small-pox being naturally virulent in its properties, will

* For the last eight years not a single case of small-pox has occurred within the dominions of Denmark; and since the introduction of vaccination, from 1802 to the end of 1813, only 158 have died from small-pox in all. — See *Annals of Philosophy for August 1819*.

seldom leave much obscurity in deciding whether it has affected the constitution ; whilst, on the contrary, the mildness of the cow-pox, which seldom produces any sickness or fever, and when it does, in so slight a degree that the person is himself scarcely aware of it, leaves us nothing to decide on but the correctness of the vesicle, a knowledge of which is indispensably necessary for the successful practice of vaccination. The manifold causes which will produce deviations in it we need not here detail ; but that, under our view, is the presence of eruptions at the time of the application of the virus. Those cutaneous eruptions to which the children of the poor are so liable, being generally of the herpetic kind, are contagious by contact ; and when one member of a family is affected, the same morbid action will often run through all its branches, provided no peculiar state of constitution then exists to render the system capable of resisting its influence. When the vaccine is applied in the usual manner, in this diseased condition of skin, the progress of the vesicle will, more or less, differ from that which is to be observed when its operation is uninterrupted and genuine, according to the degree of influence which the cutaneous affection exercises on the constitution. Some remarks upon this subject were published by Dr. Marcet, in the *Medical Journal* for May, 1803 ; and Dr. Jenner published further observations in the *Medical and Physical Journal* for August, 1804, and reprinted his valuable paper in 1806. The description he gives of the vesicle under these circumstances is as follows : —

“ Its commencement is marked by a troublesome itching ; throwing out a premature efflorescence, sometimes extensive, but seldom circumscribed, or of so vivid a tint as that which surrounds the pustule, completely organized ; and (which is more characteristic of its degeneracy than the other symptoms) it appears more like a common festering, produced by a thorn, or any other small extraneous body sticking in the skin, than a pustule excited by the vaccine virus,” &c.

Dr. Jenner also remarks, that “ the skin, although apparently sound at the point of insertion, is, nevertheless, sometimes found to be so influenced by the disease, as to baffle all our efforts to produce a pustule sufficiently perfect to secure the constitution from the contagion of the small-pox.” That this is the case, we often witness ; for in that affection of the head so commonly to be met with among the children of the poor, dandruff, (very generally the consequence of filth,) we may inoculate repeatedly for the cow-pox without producing any pustule at all, or if there be one produced, it will correspond with that above noticed. During its formation it will be often attended by a good deal of sympathetic irritation ;

the skin will be hot and dry, the tongue covered with a white fur, pain in the head, (sometimes, though rarely, exciting slight delirium,) and restlessness: these symptoms appear to be the consequence of the extent of action going on in the vesicle, and not from any direct action of the virus on the constitution; for that naturally produces no such effects. The matter contained in this vesicle will be different from that which is to be found in the true one: "it is generally of a straw colour, and, when punctured, opaque:" it forms a scab, which leaves an irregular cicatrix, larger and deeper than what is left by the correctly formed cow-pock; and, from its irritation, being often scratched and rubbed, is apt to excite a troublesome, slowly healing sore. Fluid taken from it, and applied to another individual, will propagate a similar disease; that is, it will be neither vaccine nor herpetic, but partake of the properties of both; and we may go on producing this irregular pustule *ad infinitum*, and leaving the constitution liable to be acted on by the small-pox contagion. It is, however, to be observed, that sometimes the cutaneous affection yields to the vaccine, and as the one advances, the other fades: the vesicle assumes its natural character, and the eruptions are swept away.

Although the variolous contagion lays hold of persons having had the cow-pox in this way, it is universally much milder in its effects on the system than when it attacks them without previous vaccination; and itself meeting with this diseased condition of the skin, would either be effectually opposed entering the system, or be so modified in its effect as to leave it open to a future attack: and we may very naturally infer, that those secondary cases of small-pox may depend on some cutaneous affection existing at the time of the first exposure to it.

As we have no evidence of judging of the security of a person who has been vaccinated but from the perfect formation of the vesicle, a correct knowledge of it should be acquired; and when deviations occur, they are always to be looked upon with suspicion; and it would be well, in such cases, never to omit the test of a second inoculation. We should be also careful in our search to detect any disorder which may be about the skin, and when detected, to subdue it. It is not necessary that a large portion of the surface should be in a palpable state of disease; for the most trifling part, an oozing from the edge of the nostril, angle of the mouth, edges of the eyelids, behind the ears, &c., a single blotch will occasionally so influence the whole as to reject or to modify the action of the virus. When we find too constitutional irritation, we should suspect all was not right, as we know that the true vesicle seldom produces any, and

that it is never necessary for the security of the patient. I have just seen a case of irregular cow-pox, from eruptions on the upper lip; matter has been taken from the child and inserted into two others, to witness its effects: sufficient time has not yet elapsed to show the progress in the two latter cases; but in the former the state of the vesicle on the ninth day was not more forward than it should have been regularly on the fifth—an unusual circumstance in this cutaneous affection, as the pustule generally arrives at maturity within the time which it takes in the pure cow-pox.

Conceiving this source of failure to have passed by very often unnoticed, and by many not to be heeded, I have ventured to offer these observations; and although I am aware that they do not bear the stamp of novelty, since Dr. Jenner published his paper so long ago, I trust they will not be wholly uninteresting. Every mind, sensible to the welfare of mankind, must ever feel a lively interest in the subject of vaccination; and whilst the name of its discoverer is graven in immortal characters, and handed down to posterity, surrounded by an ever blooming wreath of fame, we should each individually feel a pride in advocating its universal dissemination, and by careful observation endeavour to remove every prejudice against it, by showing the causes which may obstruct its due influence on the human constitution. I will conclude by merely adding —

“ Si quid novisti rectius istis,
Candidus imperti; si non, his utere mecum.”

V.

On the Artificial Induction of Premature Labour in Cases of Deformed Pelvis. By H. DAVIES, Conduit Street.

THE propriety of inducing premature labour in certain states of deformity of the pelvis is generally admitted, and the mode of performing the operation is also detailed in many of the works on midwifery. It will therefore be unnecessary for me to enter into the history, or to detail the usual mode of performing this operation*; but as in the present case I was led to deviate in some measure from such mode, and I think with advantage, I have transmitted the case for insertion in the *REPOSITORY*.

* A full detail of the history, &c. of this operation will be found in Dr. Hull's Defence of the Cæsarean Operation, and in an excellent paper of Dr. Merriman on Premature Labour artificially induced, in the third volume of the *Medico-Chirurgical Transactions*.

Early in the morning, on the 25th of November, 1818, I was sent for to Mrs. H., who had been in labour some days. At twelve o'clock at night on the 26th, in consultation with Dr. Ley, for whose kind assistance I am much indebted, it was deemed necessary to perform the operation of embryulcia. In the morning, at six o'clock, the remains of the head were expelled, followed by the body, and shortly after the secundines, &c. The pelvis was found to admeasure, in its conjugate diameter, barely two inches and a half. Her recovery was not attended with any untoward symptom, except that she complained of soreness for some days.

Mrs. H. had been affected, when a child, with rickets, and the tibiæ were very much curved. The vertebral column was tolerably regular; and she had enjoyed, of late years, excellent health. She is now twenty-three years of age. About the latter end of February, or the beginning of March, 1819, she conceived again. She enjoyed good health during her pregnancy.

As, from the contracted state of her pelvis, there was little probability of her having a living child at the full period; and as she dreaded again going through the same operation, and suffering equally to what she had done in her former labour, it was determined, in September, that premature labour should be induced the first week in October.

October 7th. — She took a dose of ol. ricini sufficient to empty the rectum. On the eighth I had purposed puncturing the membranes; but on passing my finger through the os uteri for that purpose, the projecting angle of the sacrum was so prominent on the one side, and the head of the foetus on the other, that I could not, satisfactorily to myself, find a spot in which to pierce the membranes, without incurring the danger of wounding the mother or infant, (although I had carried up a long catheter, or rather the French sonde conique, which I had found useful for such purpose.)

As I was anxious to succeed in inducing labour, and reflecting that if I could do so, and preserve the membranes entire, it would be still more desirable, as I should then have the full membranes to assist in dilating the parts, and that there would be a greater probability of preserving the child, I dilated the os uteri well with my finger, and detached the membranes in its vicinity, at which she felt a little uneasy and sick. I directed her to walk about briskly; and while doing so, she was scarcely sensible of any pain or uneasiness.

In order to keep up the uterine action, I directed that she should take a dose of sulphate of magnesia, &c. in infusion of senna every four hours, till I saw her the next day.

9th. — She passed a good night: the mixture had produced copious evacuations from the bowels, and she had vomited a little; she has slight pains, or rather uneasiness; the os uteri somewhat dilated. Omit the mixture, walk out.

11th. Monday, at seven A. M. — Was informed she had passed a restless night, and this morning had a good deal of pain, resembling labour pain. Dose of ol. ricini at noon; pains frequent; constant desire to make water; os uteri dilating. In the absence of pain the head of the child is perceptible at the superior aperture.

At eight o'clock P. M. — The pains extremely severe; she is restless, and complains much; doubts the possibility of having a living child. Her friends and she earnestly entreat that her sufferings may be relieved.

Nine o'clock. — As the bag of membranes, with fluid, now pressed on the perinæum, and the rectum was well cleansed, and the parts appeared dilatable, I pierced the membranes, which, after apparently the most acute sufferings, produced an interval of ease; the head of the child still stationary; the sagittal suture running transversely.

The pains in a few minutes returned with fresh vigour: in three quarters of an hour the child was born: the sides of the frontal and parietal bones were indented, from, I presume, the pressure between the angle of the sacrum and the pubis: the secundines followed in twenty minutes.

The child is a female; formation perfect; the skin very red; unable to cry, &c. as in premature children.

12th, Tuesday. — Mother in every respect doing well: the child had taken a little gruel, and some castor oil. It has no idea of sucking; to be fed on whey, and to endeavour to teach it to suck by the aid of a nurse's bottle. The mother, never having been a nurse, has a flat nipple, but a good breast of milk.

By degrees the child learned to suck, and on the 1st of November subsisted on the breast milk entirely. Both mother and child well.

February, 1820. — The child thriving and healthy: the mother an excellent nurse, and well.

VI.

Two Cases of Fungus Hamatodes. By E. SUTCLIFFE,
Surgeon, &c. Queen Street.

MR. W., of the East India House, was the subject of a stationary excrescence under the left clavicle from his youth, issuing from an old cicatrix. During the spring of the last

year he amused himself much in his garden, and had many accidental rubs upon the protuberance. From those circumstances considerable pain was occasioned, and the ulcer emitted very sanious matter. A consultation was held upon the case, of the first eminence; and, as the radix of the tumour was probably deep seated, no further time was suffered to elapse; and its removal by the scalpel was unanimously urged, and as promptly acceded to by the patient. Two lateral incisions were made, each commencing at the superior, and meeting at the inferior part of the tumour; a small vessel was tied up in the interim; the pectoral muscle was beautifully denuded; the fungus, without difficulty, removed; the edges brought together by adhesive plaster; and the triumph of the knife is complete. Hitherto we have had no cause to lament its reformation.

Precisely at the same period, Mrs. B., of Bishopsgate Street, showed me a small ulcer upon the right side of the tongue, which she attributed to a decayed tooth. As this appeared very probable, the carious member was extracted. However, still it continued to exude much offensive matter, and it began to be treated in a similar manner. With a camel's hair pencil I touched it with a solution of lunar caustic and sublimate alternately. Under this process it appeared to heal, and unexpectedly I had acquired no small share of credit; but this cessation of diseased hostilities was evanescent. The ulcer suddenly exhibited the most malignant character; the whole tongue was quickly indurated; the distressed subject was scarcely able to articulate; deglutition was conducted with extreme difficulty; the throat prodigiously swollen; and she expired suddenly, by suffocation, about the termination of the third month from the commencement of the disease. Mr. Travers was so kind as repeatedly to render his important assistance; and I beg to embrace this opportunity of expressing my sincere respect for that gentleman's splendid talents and professional attainments.

VII.

A Case of Intercoastal Pain. By the Same.

AN interesting young female, who had just emerged through her catamenial difficulties, was suddenly seized, without any apparent cause, with an intolerable intercoastal pain, which yielded to no means less powerful than the

lancet. The relief, however, although complete, was not of long duration. After a time, venesection was again obliged to be resorted to, and the relief was so decided, that on a third attack, the patient urged its repetition; and, I believe, at her request it was repeated several times afterwards. An alarm began to be now excited as to the probable results of these very formidable depletions; and at this period it was suggested to bind the ribs up, as in a fracture, and relief was as rapid and complete as the blood-letting had before been. *The important fact of the case is, that the pain has never since returned.*

VIII.

A Case of Hydrocephalus; with an Account of post mortem Appearances and Remarks. By W. WANSBROUGH, Surgeon, &c. Fulham.

AT ten o'clock P. M. on the 8th of February, Mr. Plane's child, a girl, aged two years and eight months, was at play in the garden. Upon coming in, she was attacked with shivering; the arms were discoloured; but this appearance was attributed to the effect of cold. About five o'clock she felt hot; fever appeared, and increased excessively during the night. Towards the morning of the 9th a remission took place; and, being from home, her mother, who was with her, deemed it prudent to return, and procure medical advice. On her way, at eleven o'clock, the father overtook them, and relieved the mother by carrying the child. He had scarcely taken her into his arms, when she became suddenly insensible; her extremities rigid, and extended; eyes turned up, and fixed. They sent for me; I was absent; and another medical gentleman in the neighbourhood arriving, two leeches were applied to the scrobiculus cordis. She was put into the warm-bath, and twenty grains of pulv. scam. c̄. calom. were administered. I did not return until seven o'clock, when I collected the preceding account; and in addition learnt that the child had taken some *fever* powders the day before, pulv. antim. I supposed. They produced vomiting; and she brought up her dinner.

At seven o'clock the following symptoms appeared, viz. — Pulse 147; *subsultus tendinum*, and *coma*; the leeches continue bleeding, have done so eight hours; two enemas were thrown up shortly after the scam. and calom. were taken; two motions have been procured; vomiting of bile, and with it, I perceive, a small piece of undigested meat.

Nine o'clock. — Pulse 180, hard and small. A Physician

of eminence saw her at one o'clock in the morning; the pupils were susceptible to light then. He ordered a long blister between the shoulders, in the course of the spine, a cold evaporating lotion to the head, and five grains of hydrarg. \bar{c} creta, with a quarter of a grain of pulv. digitalis, 4tis horis. I remained with her till three o'clock. She became very uneasy, and restless; vomited a greenish matter: this I attributed to the calomel, as I saw no more of it.

10th, eight o'clock A. M. — Pulse 144; has had some calm sleep, if *sleep* it may be called; but it is evidently coma; pulse 144, small and vibratory; pupils dilated; the child is sensible, yet not conscious; there is a vacant stare in the eye, and incoherence of utterance: no alvine evacuation since the operation of the scammony. Sumat hydrarg. sub. gr. iij. statim, et infus. sennæ, 3x. mannæ, 3ij. cochl. major. om. hor. Skin cool.

Four P. M. — Has had three hours' sleep; awoke restless, and continued so; medicine has not operated; passed a good deal of urine. At half-past four she sunk on her pillow as if exhausted, and *appeared* to sleep; has taken chicken tea; vomited once, and brought up the medicine.

Five o'clock. — The medicine has acted twice. She sat up, and was amused till six, when she became fatigued, and fell *asleep*. A book was shown to her at seven: she stared wildly at it.

Nine o'clock. — Now asleep; head hot; breathing hard, and quick; fever.

11th. — At nine o'clock this morning she awoke suddenly frightened, and screamed loudly, called for her mother rather incoherently. When her mother took her up, she was insensible of her presence, but clung fast to her. Her father took her: she cried and moaned, and her head fell insensibly on his shoulder. The Physician who first saw her was immediately summoned. He could not attend, but sent his coadjutor, a gentleman of high professional talent. When he arrived, two hours after, the little patient was better, and appeared conscious; the delirium had gone off; pulse 176; shortly after she *fell asleep*.

Medicamenta repr. et mist. febrifuga comm. 6tis horis adhibenda.

She *slept* till one, when she awoke frightened, as in the morning; an alvine evacuation followed, tinged with healthy bile; pulse 144, *full and strong*: gave the mixture during the day.

Nine o'clock. — Has awoke in a hurried way several times,

as in the morning; sat on her chair, and passed urine, thick; had voided her urine all the day involuntarily; pulse 176; moans when *asleep*. She was put into a *spirit bath** in the morning by the gentleman who first attended her, and brandy and water administered. This, I find, has been repeated (the brandy and water,) *twice* since. Writhing was attributed to pain in the bowels, and warm flannels were applied, which seemed to give relief. Remained till three o'clock. Observed her rub the occiput with some force against the pillow during the night, and put her hands to the occiput frequently; complained of pain in the *head*, for the first time, upon being roused. Pulse 176, full and strong.

Two o'clock.—Very restless; delirium. Pediluvium produced quiet.

A difference of opinion unfortunately existing between the medical gentleman who first saw the child and myself, and his continuing in attendance, after delivering the patient up to me, placed me in a very awkward situation. He attributed the exciting cause of the attack solely to the *stomach*, and denied the existence of any affection of the head, notwithstanding the symptoms continued to increase most alarmingly after the stomach and bowels had been completely cleansed; and he suggested, nay, ordered an enema at four o'clock this morning, *i. e.* on the 12th, with five drops of laudanum, with a view of allaying the irritation of the bowels. As the patient appeared *to me* to labour under primary cerebral irritation, I protested against such a measure; but the enema was given. How far the disease was benefited by the remedy, will appear as we go on.

12th, nine P. M.—Pulse 180, full, and strong; breathing *oppressed*, for the *first time*; delirious; talks incoherently: gave her two ounces of ol. ricini. Suspecting the case, or rather, *firmly* believing it to be cerebral inflammation, and that effusion would inevitably be the result; and as nothing had been done to check the progress of the disease since the leeches were applied, except the blister between the shoulders, and which healed in forty-eight hours after it was applied; I suggested to the parents, that the child would be lost unless speedy and decisive measures were adopted; and, as there appeared to be a disposition to discredit my opinion, this was objected to, and I then proposed a consultation of two other gentlemen in the neighbourhood, upon whom they could rely; and, should their opinion coincide with mine, I would act, but without the interference of another. This proposal was acceded to. The result of the consultation, (from which

* Hot water and gin.

I excluded myself, to prevent the idea of bias,) was, *cerebral disease*, and that effusion *had, or was about to take place*. The child was comatose, and occasionally delirious, when seen by the gentlemen mentioned. Thus sanctioned, I proceeded to shave the head, took away some blood by cupping, and ordered the application of a large blister.

R. Haust. Salin. ʒiv.
 Syr. Tolu. ʒiv.
 Tr. Digit. gr. v. 4ta q. h. s.

Four o'clock. — Two motions; pulse 130, full, and soft; awoke, and took her medicines; talked more coherently.

Nine o'clock. — Appears, on the whole, relieved: left her quiet at eleven.

Note. — The pulse evidently *lowered* to-night. She appeared almost insensible to the operation of cupping in the morning.

13th, nine A. M. — Delirium; pulse rapid; has *'slept* all night; extremities cold during the night. The pupil is now *permanently dilated in a strong light*. The two gentlemen who decided the question have seen her to-day, and confirm *the fact, that effusion has taken place* on the brain, thus constituting *hydrocephalus*. Deglutition impeded; pulse 176, small, and weak. She seems as if conscious; makes an effort, but cannot speak. The blister has risen; another motion, making three, from the castor oil. All hope now seemed over; yet, unwilling to resist the temptation of the ung. hydr. fort. in promoting absorption, it was proposed to give it a trial; accordingly, one dram was directed to be rubbed into the thighs *bis quotidie*.

Four o'clock. — Pulse 176; heat of surface much increased. The Physician who first saw her paid us a friendly visit, and gave *his* opinion that she was labouring under *hydrocephalus*. *Five days*, he said he thought, would terminate the miseries of the little sufferer. He suggested the application of a larger blister, to cover the whole scalp. This suggestion I did not act up to, as the one already applied was within a very little of the extent, and was as likely, I thought, to answer the end in view, viz. counter-irritation, and the promotion of absorption. The Physician also suggested the continuation of the pulv. digitalis: she therefore had i. gr. 6tis horis, cum calom. gr. i. Haust salin. repr. Deglutition continues difficult, but the medicine was got down.

14th. — Removed the blister, and applied another; continued the inunctions; the digitalis, producing nausea, is omitted, and hydr. sub. only continued; pupils susceptible. The child has experienced lucid intervals.

Two o'clock. — Gave an enema.

Four o'clock. — Repeated it.

Nine o'clock P. M. — Has had a very copious motion, amounting almost to diarrhœa. She appears very low and weak, yet the pulse is 144, and full.

15th. Nine A. M. — Pulse 152, full, and soft; pupils sensible, and contracting to the light; fever abated; appears, upon the whole, better; has taken four grains of calomel during the night. She has taken tr. digitalis in draughts, from five to twenty drops in the twenty-four hours.

To-day, 16th. — She continues twenty-five drops 6tis horis; blister repeated; inunctions repeated; blister discharges pus. There have been now four ounces of ung. hydr. rubbed into the thighs and legs; allowed chicken tea, roasted apple, with rennet whey.

16th. Ten A. M. — Has had one very copious motion, quite an heterogeneous mass; became very low; pulse 152; inunction and blister repeated; one grain of calom. 6tis horis; ordered mutton tea; gave two drams of ol. ricini, which produced a motion with bile.

17th. — Much the same. Medicamenta repr.

18th. — As yesterday, until ten A. M., when I was sent for, in consequence of great restlessness all day, which increases; pulse 152, small, and hard; moaning; head evidently affected; comatose; applied four leeches to the temples; stayed with her till four o'clock; left her more composed.

19th. Ten A. M. — Moaning and restless; pulse 138. Empl. lyttæ nuchæ. Contr. frictio et calom.

Ten P. M. — Has had a trifling cough during the day; to take syr. papav. supposing it to arise from irritation.

20th. — Appears considerably better; eats heartily; and continued to mend until the 25th, when symptoms of peripneumonia appeared; and on the 26th the pulse became quick, small, and wiry; breathing considerably oppressed; cough increased; very restless; her expression of pain is different from what it has been; hitherto the child has *moaned*, as if unable to resist the pressure of symptoms; now she expresses her feelings by a short grunt at every expiration: to those about her she appears cruelly distressed. Having depleted the system so copiously by bleeding and purging, with the hope of preventing effusion in the chest, I applied, immediately, a large blister over the chest.

26th. — Has passed a very restless night; no better; has had one motion; gave two drams of ol. ricini, and two grains of calom.; pulse quick, hard, and vibratory.

Four o'clock P. M. — Symptom increased; has had three motions.

Twelve o'clock. — Pulse almost innumerable, hard, and full; breathing quick, hurried, and difficult; has not taken any notice during the day; delirium. *Note.* — A marked metastasis to peripneumonia. Castor oil repeated; three leeches to scrob. cord.: obtained two ounces of blood from the leeches. The wounds bled till three o'clock. She breathes better, and not so quick; pulse hurried and vibratory, but fallen; slept from four till six.

27th. Ten A. M. — Awoke much better; expectoration of phlegm free; pulse fuller, and softer, but quick, and very weak; sat up and played with her toys; ate *sopped bread, and drank tea*. Emulsio amygd. ℥iv. tr. digital. gr. xv. tr. opii, gr. v. cochl. parv. 4ta q. h. pulv. antim. gr. v. eum sing. dos. mist. Towards evening she became more oppressed, and slightly delirious.

Ten P. M. — Applied three leeches, and continued the powders; took very little nourishment to-day: left her at a quarter past four, composed and easier; inspiration deeper, and less hurried; pupil sensible all day. At a quarter past four I left her decidedly and evidently relieved.

28th. Ten A. M. — Very irritable; has had a motion with *healthy* bile. She bit her mother's and her own finger this morning; puts her hand to her head incessantly, and picks the blister; cough much abated; the pupil contracts almost to a point; delirium at intervals; evidently worse; brain manifestly inflamed; pulse rapid and small, but regular. Emp. lyttæ mag. inter scap. pulv. antim. gr. vi. et calom. gr. iii. 6tis horis.

29th. Nine A. M. — Blister has risen well; the child is sensible, and better; takes a small quantity of nourishment, not more than a teaspoonful at a time.

Ten A. M. — Better; pulse quick, but full and soft; breathing quick, but not oppressed; passed a pretty good night. Medicamenta repr.

Nine P. M. — Better; has sat up, and was amused with toys for an hour; very weak; took tent wine in water.

March 1st. Seven A. M. — Much better; every symptom remitted, except debility; a slight oedema of the feet was noticed yesterday, but does not exist now; has taken part of a new laid egg with evident relish; sat up two hours, became exhausted, and fell asleep. This is the only period when I have acknowledged that she *slept*.

March 2d. — Not so well; breath again oppressed; liver enlarged since yesterday. Calom. gr. i. 6tis horis, the quantity of a nutmeg of ung. hydr. to be applied to the hepatic region night and morning.

3d and 4th. — No alteration of symptoms; but has passed

good nights; motions still discoloured; the tongue has all along presented a thick coat of brown fur on the surface; breathing not so oppressed to-day; takes tent wine occasionally; the liver shows itself conspicuously; the frictions produce pain, and are therefore discontinued *pro tempore*; calomel continued; pulse frequent, and weak; the child evidently labouring under urgent symptoms, and losing ground; put her in the warm bath; continues to take tent wine, arrow root, custard, and every other nourishment.

6th. — Discontinued friction; anasarca increasing, with dyspnoea; put her in the warm bath; applied three leeches, and staid with her till three o'clock; asleep.

10th. — Seems better, yet the legs swell.

12th. — Ascites; abdomen tense, and fluid felt sensibly fluctuating. Gave pulv. jalap. gr. vi. calom. gr. iii. until the 16th, when the abdomen became flaccid, and there existed no longer any symptom of ascites; the left leg and thigh, however, considerably swollen.

17th and 18th. — Symptoms of hydrothorax increasing; refused the medicine for the first time. The mother this afternoon said she had felt the child's heart beat on the *right side*. Upon examination under the clothes I found her assertion correct, but could not account for it. The little patient continues to take veal broth, egg, &c.

19th. — The mother tells me that there is a projection of the left side of the chest. I examined, and discovered a trifling projection, which I attributed to the debilitated state of the patient, and also to her having lain most upon the left side.

20th, 21st, and 22d. — Continues very ill; dyspnoea very great. On the evening of the last day she became exceedingly restless, not very long in one posture. I applied five leeches to the temples, and ten minutes after a convulsive effort suddenly came on, resembling apoplexia, and the dreadful struggle was ended an hour after, the child being apparently sensible.

Inspectio Cadaveris.

The body represented exactly the appearance of a lateral curvature of the spine; the right shoulder a little elevated. Upon dividing the cranium, the dura mater was wounded by the saw; a quantity of aqueous fluid escaped, to the amount of at least two ounces. The dura mater adhered firmly to the portion of cranium that was removed. The vessels of the pia mater were loaded with coagulable lymph, their caliber completely filled with it. The superior longitudinal sinus contained a very small quantity of coagulated blood;

almost the whole of its caliber also being occupied by a dense, firm, round string of coagulable lymph, of a fibrous appearance, representing the appearance of several threads laid parallel. Coagulable lymph was found effused between the arachnoid membrane and the pia mater; the pia mater between the convolutions adhering from inflammation; the lateral, the third, and fourth ventricles distended with aqueous fluid. The foramen of Monro enlarged, so as to admit of the little finger, as also was the iter ad infundibulum, the iter a tertio, and, in short, every cavity where it was possible for the fluid to insinuate itself. The lateral sinuses were loaded with blood. Eight ounces of fluid were extracted from the cranial cavity, by the sponge, besides what was lost in wounding the dura mater. The plexus choroides pulpy and pallid. *The appearances of the brain afforded an absolute proof that hydrocephalus had existed and continued till death.* The thorax was next examined, and the appearances were as follow:—A quantity of pus spouted out upon penetrating the cavity, and continued to flow freely. When the sternum was removed, the whole cavity of the thorax exhibited a sea of pus: nothing was to be seen distinctly: the left bag of the pleura was filled with this fluid, a greenish pus. By the distention, the heart was thrown completely over on the right side, and, with the right lobe of the lungs, was completely pushed against the ribs; the left lung had entirely lost its character; it appeared, and was at first supposed to be a thick ligamentous chord, extending from the clavicle to the diaphragm, where it was firmly bound. The heart and right lung were healthy in appearance. Rather an unusual quantity of opaque fluid was found in the pericardium, with coagulable lymph. The quantity of pus found in the cavity of the thorax exceeded three pounds. The abdominal viscera were all perfectly healthy and sound. The liver was cut into, and its parenchymatous structure was found beautifully perfect. The stomach was opened; its rugæ were equally perfect; the abdomen contained some fluid, and the remains of cells containing fluid, the remains of ascites. No disease of the mesentery or its glands was in the least observable: this accounts for the absence of marasmus, which I looked for. A remarkable pathological fact occurred during our examination—the liver, which before appeared with its indurated edge considerably below the umbilicus, now returned to its situation under the ribs: this led to an examination of the diaphragm, which was found to have protruded into the abdomen nearly to bursting, and had thus pressed down the liver, so that a more conspicuous projection of the parietes of the thorax was prevented by the yielding

elasticity of the diaphragm. Now it unfortunately happened, that no symptom of empyema had ever appeared; for that empyema and hydrocephalus existed simultaneously, the reader cannot by this time doubt. The child never experienced one rigour during the whole period of the attack: there was no particular œdema of one leg, as both legs and thighs became alternately enlarged. The disposition to lie on one side I attributed to habit, as, by lying on the left side, her face was turned to her mother. When in the warm bath, neither the attendants nor myself noticed any unnatural projection of the chest, all the symptoms bearing so strong an analogy to hydrothorax. I hesitated not to say so: moreover, I never saw the child undressed to notice her form; a measure I shall in future always adopt, viz. to examine the body when undressed. It appears, then, that the yielding of the diaphragm prevented that distinguishing criterion of empyema, viz. projection of the ribs and sternum. The mother is certain that she felt the heart beat on the right side the *first day of the attack*. Could this be? Is it possible that a quantity of pus, sufficient to displace the heart, could have existed *à priori*, and not have produced more decided symptoms earlier? I think not. My opinion of the case is simply this, that some irregularity in the position of the heart existed previously to the attack; whether congenital or not, is impossible for me to state, as I did not attend at her birth. I believe, therefore, taking this proposition upon presumption, that the early effusion into the cavity of the thorax never commenced until *after* the termination of the inflammatory metastasis from the brain to the chest. The attack of the chest was peripneumonia, as I supposed; for the *structure* of the lungs, even the left one, was wholly unaltered in its natural appearance; as, from the ratio symptomatum, and concomitant circumstances, I judged the existence of *hydrothorax*. I have put the word *sleep* in italics during the attack of phrenitis, and whilst effusion on the brain appeared, because I am confident the child never properly slept: on the contrary, I could always rouse her with very little effort during the primary symptoms; and afterwards, previously to the peripneumonia, her sleep, if such it may be called, was decidedly *coma*. I was assisted in the examination by Mr. R. Rouse, a gentleman whose professional acquirements are in the highest degree creditable both to his skill and industry.

IX.

Examples of the Deceitfulness of Symptoms in Cases of Pulmonary Disease. By J. GORDON SMITH, M.D.,
Cleveland Square.

It is not my intention to signify that symptoms in diseases of the above nature are more deceitful than those connected with many other maladies; but, by recording two cases that came under my observation, and which seem to form rather a particular contrast, to illustrate the unavailing efforts to which Practitioners are sometimes reduced by the deceptious character of symptoms, perhaps some abler pen may be thereby incited to favour the Profession with something more important on the subject.

The imperfections and anomalies in diagnosis might furnish a very interesting, as well as a very useful theme for a separate treatise. There are few diseases received in nosology, in which there are not some explicit symptoms that, for the most part, *really* characterize them, as well as being assigned to them as characteristics by authors. It is also true, that, besides the deficiency of more or less of the *amount* of these symptoms, recorded in definitions and histories of diseases, they may either be altogether wanting, or even when all present, they may be the effect, and therefore the indications of some other disorder.

But, not to protract these remarks, the generally received definition of pneumonia notices fever, accompanying pain in the thorax, difficulty of breathing, and cough, as the necessary characteristics of that disease. In hydrothorax, we are taught to look for dyspncea, pallidity of countenance, œdema in the feet, scantiness of urine, difficulty in lying down, sudden and spontaneous starting from sleep, accompanied with palpitation, and fluctuation of water in the chest*.

A few years ago, I had an opportunity of seeing a young man in a hospital, aged about twenty, apparently in a state of confirmed convalescence, and about to be discharged as cured. Either on the very day of his proposed dismissal,

* Vide Synops. Nosol. Method. of Cullen.—In actual practice our diagnosis must be formed upon the history, and particularly on the causes of the disease, as well as the symptoms extant. I have here thought it sufficient to confine myself to the symptoms; and have taken them from the definitions of Dr. Cullen, as an unimpeached authority, and as being given concisely.

or on that which preceded it, he was suddenly attacked with pain in the thorax, impeding respiration and exciting cough, accompanied with increased pulse. Venesection was resorted to in the first instance; but as the pulse, soon after the vein was opened, fell in an unusual manner, this, together with the recollection of the disorder under which he had recently laboured, induced the gentlemen who directed the plan of treatment to desist, and a very small quantity of blood was abstracted. The bowels having been rather confined, a saline purgative was administered, and a blister was ordered to be laid over that part of the thorax where the sensation of pain was felt. The patient died almost as soon as this was carried into effect.

His previous complaint had been anasarca, to a considerable extent. From this he had, to all appearance, made a good recovery; no suspicion having, at any period of his disorder, existed, as to the presence of water in the chest. On opening the body, the right cavity of the thorax, the side in which the pain had been felt, was full of this fluid. It may be alleged, that there was no ground for astonishment on such a discovery, knowing the frequency with which effusions take place suddenly into the cavities in dropsical habits; and considering, also, that water might perhaps have been accumulating for some time in the chest, though without producing any indications of uneasiness previously. I have but one observation to make; viz. that the symptoms resembled, collectively and individually, those which experience has established to be indicative of inflammation in the contents of the thorax, though it can scarcely be supposed that *acute inflammation*, at least, really existed.

At a more recent period, a case, that may probably be considered of more importance than the foregoing, occurred under my own care, the particulars of which I have abridged from the journal in which it was originally detailed, as far as an intelligible report will allow.

1818. March 1st. — G. G., ætatis twenty-seven, has for a long while laboured under symptoms that appear to denote a disordered state of the stomach, for which he has been repeatedly under treatment, with occasional relief; imprudently persisting in the discharge of his duties, to the utmost extent of his ability. Of late, he has been living in a cold, uncomfortable farm house, in an exposed situation in the country; and, finding that he now grows rapidly worse, it is judged advisable that he should be removed into the neighbouring town, in order to be near his friends, to try the effect of a change of air, with relief from occupation, and to be more

conveniently situated for medical attendance. His present complaints amount to dyspnoea, without any particular pain; an occasional, though not frequent fit of dry coughing; various symptoms of dyspepsia, such as pyrosis, ructus, and a sense of oppression in the region of the stomach*. His appetite is scarcely impaired. Sweats very rarely; but is much inclined to costiveness. There is considerable emaciation, and much debility.

A laxative medicine was ordered, which operated well; but the symptoms remaining unaltered, on the 3d an infusion of quassia with sulphas ferri was ordered. Diet, the lightest animal food.

6th. — Since last report no material alteration; appetite good; bowels regular; cough more frequent, and troublesome, unattended by expectoration; difficulty of breathing, apparently from a spasmodic cause; pulse natural; and no febrile symptom. A pectoral mixture, containing squill, ether, and opium, was ordered to be taken, when the cough should be troublesome. Other medicine continued as before. This mixture afforded relief; and he went on without alteration for several days.

On the 13th, he was particularly distressed with heartburn, which was relieved by a few grains of magnesia.

14th. — Passed a bad night, during which he perspired much. Symptoms, in other respects, remain much as described. Medicines continued, with an opiate at bed-time.

17th. — By the aid of anodynes he passes better nights; bowels costive; appetite rather craving, particularly in the morning. His food agreeing perfectly with his stomach; urine turbid, and rather scanty. *Inter. quassiae infusum.*

R Aloës Socotrinæ, ʒj.

Pilulæ Hydrargyri, ʒij.

Ferri Sulphatis, gr. x. M.

Ft. Pilulæ xxiv.

Capt. unam bis die.

19th. — Urine more natural, and plentiful.

20th. — Difficulty of breathing rather increased. It is relieved by a quantity of viscid mucus, which he now spits up in the course of the morning. *Cedema* has shown itself in the right foot, to which a roller has been applied, and a liniment has been prescribed to rub the part with. Other symptoms as before.

22d. — Swelling extends upwards from the foot. Breathing very laborious, particularly on lying down; can lie on the right side only; awakens suddenly from sleep; pulse natural.

* *Synopsis Nosologia Culleni, Gen. 45.*

Three other professional gentlemen saw him along with me to-day; and the symptoms were unanimously considered as indicative of effusion in the thorax. The case had for some time been considered very unfavourable, and now almost hopeless. A pill of scilla and submurias hydrarg. was ordered to be given three times a day.

23d. — Urine has rather exceeded the quantity of liquid swallowed. Swelling in the right leg continues to ascend; pulse quick. Contr. remedia.

27th. — No perceptible alteration since last report. Appetite continues good. Requires anodynes to procure rest. Contr.

28th. — Early this morning he was seized with pain at the scrobiculus cordis, and orthopnoea, impeding the power of swallowing, and almost of speech. Countenance displays great anxiety, and is livid. A mixture of camphor, ether, and oleum menthæ piperitidis, was resorted to, as being the most likely to alleviate the severity of the symptoms. He could not, however, make use of it; and all that could be done, was to give a drop or two of the oleum menthæ on sugar, which melted in his mouth, and, as he said, prolonged his existence. This, varied with ether and tr. opii, in the same way, he continued to make use of, until, after gradually growing worse, he died in the middle of the succeeding night.

On opening the body, coagulable lymph was found throughout the right lung, which partially adhered to the pleura behind. The left lung was tuberculated, but not distended; there was also adhesion at its upper and anterior part; but in neither was there any abscess or purulent matter; no effusion whatever in the cavities of the thorax. The pericardium contained the quantity of fluid generally found in it. All the other viscera appeared sound and natural.

The report of the progress in this case might have been made more minute, had the result been anticipated. During the continuation, although it was regarded as a case of particular importance, the symptoms appeared to indicate certain morbid states of internal organs in the usual manner; and notwithstanding my own persuasion, that a case precisely similar in appearance might occur in which the result would be different, though the indications might appear to require the same treatment, yet I consider this instance as fraught with instruction on the score of caution, as to bold or hazardous practice. Paracentesis thoracis was spoken of; but, happily for the reflection of our own minds, not attempted. I have seen some cases of effusion into the thorax; but have

rarely seen the symptoms more explicit than they were here, during the few last days of life. I have watched the progress of many pulmonary disorders to a fatal termination, and have verified the nature of the complaint by a *post mortem* inspection; but I neither recollect any one that showed so very little token of disorder in the lungs during life, nor, indeed, an instance of the kind in which disorder there, was not pre-eminently manifest.

An extensive commentary of a comparative nature might easily be appended to this report, which I decline attempting, because the same peculiarities of difference or similarity will readily occur to the reader that have struck my own mind; and because most of those who may peruse this paper, are better qualified to make the fair application of it than I can pretend to be.

DEPARTMENT OF NATURAL HISTORY, &c.

Calendar of Flora and Fauna, kept at Hartfield, near Tunbridge Wells. By Dr. T. FORSTER. From the 22d of March to the 14th of April, 1820.

March 22d.—*Viola canina* in flower in a warm situation at Walthamstow.

23d.—In a long ride through a large portion of Essex, by Abridge, Brentwood, &c. I had occasion to notice the extreme backwardness of the present season. I scarcely saw a wild plant out, though the day was fine; and, had it not been for the Crocuses and Snowdrops, which ornamented the gardens, and here and there Narcissi and Hyacinths in the windows of houses, one might easily imagine it February, instead of March.

24th.—*Viola odorata* just in blow; also the *Narcissus pseudonarcissus*, as well as its double variety, called the Yellow Double Daffodil. The wind is westerly, but the temperature rather low. I hear that the flowers of *Tussilago Farfara* were seen yesterday vended in London streets; but I have not yet seen this plant in flower. The Apricot is in blossom. A cold east wind returned at night.

25th.—*Thlaspi Bursa Pastoris*, the Shepherd's Purse, in flower. Cold north wind.

26th.—*Hyoscyamus Scopolia* in flower at Clapton, in T. F. Forster's garden.

29th.—*Ficaria verna**, the Pilewort, and *Leontodon ta-*

* The *Ranunculus ficaria* of some authors. This plant was first seen to-day in Berkshire, near Binfield, and in other places. It is

raxacum, the Dandelion, in blow near Aldenham. In a field hard by I discovered also abundance of *Tussilago Farfara*, the Colt's foot. I hear that the *Daphne Laureola*, *D. Mezereon*, and *Pyrus Japonica*, flowered to-day; and that the *Papilio Io* was seen.

30th. — Butterflies, and other insects, begin to be common.

31st. — *Pulmonaria officinalis* in flower.

April 1st. — This is a late season; not a leaf is to be seen yet. Crocuses, Snowdrops, Violets, Daffodils, Wallflowers, and the varieties of Polyanthus, and of the *A. hepatica*, ornament the gardens and thickets.

In Berkshire, to-day, *Mercurialis perennis*, *Veronica agrestis*, and *V. serpyllifolia*, in flower.

2d. — *Bellis perennis*, the Daisy, in flower. The lesser Pettychaps (*Ficedula pinetorum*) seen and heard.

3d. — *Draba verna* in flower.

5th. — *Narcissus minor*, and *Cynoglossum omphalodes*, in flower at Hale End, in a garden. Riding to-day I observed a fine blow of Hyacinths (*H. orientalis*) of various colours, in full luxuriance, in the open air, at least protected only by an awning.

6th. — *Caltha palustris* in flower below the long bridge in the marshes. *Lamium purpureum* every where in bloom.

To-day the April showers began from the west, and the spring seemed rapidly advancing; the Birds sing; Fruit Trees are in blossom; and abundance of Daffodils are conspicuous in the gardens every where.

7th. — I observed the flowers of the Van Thol Tulip, and also the early Clarimond Tulip, in Covent Garden for sale. The double varieties of various Daffodils begin to be sold about.

8th. — The female Redstart first seen. The double varieties of *Narcissus latus* in blow in the gardens*.

9th. — The leaves begin to bud. Dandelions, Pilewort, and other spring plants, begin to be common.

10th. — Dark day, with gentle showers from the south.

13th. — *Anemone nemorosa* in flower.

14th. — Moist, misty weather. I saw the Red Crown Imperial (*Fritillaria imperialis*), and the varieties of *Primula Auricula* in flower to-day near Ilford, and the yellow variety of

probable that plants in very different places come into flower at the same time; the first warm day bringing them out.

* There is still some doubt respecting plants of this genus. The species I allude to is the *Narcisse des Jardins* of St. Hilaire, in his *Plants de la France*.

the former is just coming out. The early Clarimond Tulip (*T. Gesneri* var.) is in blow at Walthamstow: also the Van Thol Tulip.

The spring rapidly advances; the Fruit Tree buds are every where strong and flourishing. The Hyacinths (*H. orientales*) are generally in blow in the open ground; *Narcissus odoratus*, *N. latus*, and others in flower.

The Cuckoo first heard to-day.

[*This Journal is to be continued in the neighbourhood of Tunbridge Wells.*]

PART II.

ANALYTICAL REVIEW.

[Our readers are again requested to recollect, that, since many individuals are engaged in the reviewing department of the REPOSITORY, the responsibility of the Editors can only be considered as reaching to the extent of competency and respectability on the part of the several writers. Even absolute consistency in points of doctrine and practice can hardly be either expected or required. — EDIT.]

I.

Observations on the Nature and Cure of Glandular Diseases, especially those denominated Cancer; and on the too frequent Use of Mercury; strongly recommended to the serious Consideration of every Individual, with a detail of various Cases, in which Cancer has been completely removed without the Use of the Knife. And in an Appendix two Cases: 1. Of Fissure of the Cranium. 2. Of Preternatural Enlargement of the Heart. By CHARLES ALDIS, Surgeon and Accoucheur; Member of the Royal College of Surgeons, &c. &c. London. 8vo. pp. 116.

WE notice this publication merely to caution our readers against being deceived by its title page. We took it up with the hope of finding some new light thrown on the nature, and some improvement suggested in the treatment of so formidable a disease as that of cancer. But after having given it an attentive perusal, we found nothing respecting its nature but what was before known; and that with regard to its treatment the author had kept almost a profound silence. To the Profession, therefore, it is not of the smallest utility; but, as it is now before us, we shall make on it a few remarks,

and particularly on some opinions which are at variance with those generally received.

In the dedication, the author observes : —

“ I feel no hesitation in animadverting upon the free use of the lancet, in the first attack of fever, with difficulty of breathing. Some hundreds of cases have come under my care, of persons who had been suddenly seized with fever and obstructed respiration, from wet, or being exposed to cold, which complaints have been speedily cured by copious alvine evacuations and blisters, without the use of the lancet, whereby the patients have escaped that debility and exhaustion which profuse venesection occasions.”

Of all cases of fever, those arising from cold and moisture, especially when conjoined with dyspnœa, would *seem* to demand the use of the lancet. The author's hundreds of cases, therefore, must have been singularly mild for not *one* to require venesection ; when, for some years past, scarcely a Practitioner, whether in town or country, but has found the lancet absolutely requisite for the safety of his patients. For proofs, we have only to consult the works of Bateman, Clutterbuck, Armstrong, Jackson, and the monthly and quarterly journals.

The author's ideas of the main subject of his work appear to be somewhat confused, or, rather, he has no idea of it ; for he observes, page 42, in answer to a Valetudinarian,

“ That he firmly believes that those who have paid great attention to it, know little or nothing of the requisites whereby real cancer can be judged [distinguished] ; and I think it would be at best but *arguing de land caprina* to attempt a description.”

A great deal of useless criticism is, we conceive, expended on an hypothesis which never, we believe, made a single convert, that of the late Dr. Adams ; but though a cancerous tumour may not be a living hydatid, yet Dr. Baron has rendered it extremely probable that all tumours owe their origin to hydatids. With respect to the hypotheses of Mr. White, Mons. Peyquille, and Dr. Lamb, we have nothing to say ; but that the practice of the last-named gentleman, when not carried to extremes, is rational and eminently beneficial, ample experience has proved. These hypotheses, however, have served to display the author's critical talents, or what was, perhaps, of more consequence, to add, like the appendix, a few pages to his book.

The grand object of the author is to reprobate that which is adopted by the best Surgeons, both British and foreign, the use of the knife in the removal of cancerous tumours ; and for this purpose he has brought forward Dr. Monro's opinion, from the *Edinburgh Medical Essays*, published some years

since. But this proves nothing against the knife; those diseases, we have no doubt, would have recurred just as soon after any mode of removal. He allows that the operation is not difficult; yet, though the Surgeon should amputate *beyond* the tumour, the disease *might* have gone deeper than the knife could have reached, that a new cancer *might* arise, and that

“ There is too much reason to dread the most serious consequences to the general system from the loss of substance, by bringing the parts together.”

That cancer is more likely to recur after amputating *all* the diseased parts, than after the author's, or any other method, is highly incredible; for if the knife, directed by a good eye and steady hand, cannot reach those ramifications the author so much dilates on, neither, we are persuaded, can any mode of extirpation not so much under the command of the Surgeon. The application of Justamond's remedy has long since been given up by our best Surgeons for that reason, as was also the potential cautery, so much recommended by Else in the cure of hydrocele. How the most serious consequences can arise from the removal of a diseased substance, and bringing the parts together afterward, we are at a loss to conceive. To our understandings the reverse would appear the most probable. Till 1807, the author informs us he pursued the beaten track; but becoming then acquainted with a Mr. O'Connor, a gentleman who had directed his attention for some years exclusively to cancer and scrofula, he acquired a knowledge of his practice, and on his death, which occurred soon after their acquaintance, he succeeded to his business.

“ The plan adopted,” said the author, “ or rather, I should say, invented by Mr. O'Connor, was to make an application on the part diseased for the purpose of deadening it, and then by emollients to induce its separation and expulsion from the sound part; taking care, all along, to support and alter the constitution so as to effect a change of system. Such is the general process for treating cancerous tumours.

“ Of the nature of the composition which constitutes the basis of this remedy, I am not warranted to speak; nor ought any unfavourable construction to be put upon this result. The virtue of a prescription depends much on the personal observation of the Practitioner and the constitution and peculiar habits of the patient. The same remedies, in different hands, and administered indiscriminately to all persons labouring under similar complaints, may produce opposite effects.

“ Where, then, so much depends on the exercise of the judgment, it must be obvious that the publication of a simple formulary, however gratifying it might be to those who would gladly avail themselves of knowledge acquired without labour, could not answer any good purpose to the community; while, in fact, the chances are, that it would

do an irreparable injury, by bringing a remedy into disrepute, which, properly managed and administered, would be most beneficial."

What would have been thought of Mr. Baynton, if, on the publication of his pamphlet on Ulcers of the Legs, instead of informing us of the composition of his plaster, minutely directing us how to apply that and the roller, together with cold water, &c. by which thousands have been benefited, he had told us that he was not at liberty to say what was its composition, except that it was adhesive; but that no unfavourable construction ought to be put upon his silence, as there was so much nicety required in its application; and that of the roller, that it could not be trusted, without a risk of bringing it into discredit, in any other hands than his own?

We have next a long digression on vaccination, termed in poetic language, the

"Sweet employ of many a live-long hour."

As friends to the practice, we shall not stop to comment on what no one but the author will consider as a decisive test of its *permanent* security, but proceed to the conclusion of the work. The author has entered a strong protest against mercury. On this we shall say a few words; as also on the observations on digitalis, which occur in the preface.

"Digitalis," he says, "has nearly become obsolete, though, some years since, nothing could be more fashionable; and miracles were almost ascribed to its potent agency."

Notwithstanding this plant has not answered the sanguine expectations held forth by Beddoes and his followers, few, except the author, but will allow it to be a medicine of great efficacy, both in moderating increased vascular action, and in producing absorption from the cellular membrane. It is true it has failed in *curing* phthisis pulmonalis; and what medicine has not? But when exhibited in its commencement, the progress of that hopeless disorder will be retarded, and the feelings of the patient rendered more comfortable; while, in anasarca, its powers are unrivalled by any medicine with which we are acquainted. From what source the author learnt it is become obsolete, he has not informed us; the prescriptions of every Physician in London would evince, we believe, the contrary. The author soon after justly remarks, "The abuse of a thing in no way militates against its utility." But it is to this abuse, whether by the late Dr. Curry or any other person, that all he has said applies. We shall pass on, therefore, to the following opinion, in which, we believe, the author stands alone:—

"But if the habits of adults suffer by the too free use of mercury," (here, too, the author forgets his own rule) "how much more must

the tender frames of children be weakened by its influence? Yet upon these fragile and delicate objects is this powerful drug employed on almost every occasion," &c. &c.

There is not a single Practitioner (the author excepted) with whom we have conversed, or heard of, but has acknowledged, that of all medicines for children, calomel is the best; and Dr. Paris, in his highly valuable work, only echoes the sentiments of the Profession in the following sentence:—

"It appears (calomel) to be particularly eligible in the diseases of children; and it is singular that children can bear *larger* doses of it than adults."

Of the cases, we shall only observe, that they would, in our opinion, have been equally successful after the skilful use of the knife as after the author's *deadening* application. The book is handsomely printed, got up in the dandy style of three recent writers, and dedicated, by permission, to the learned President of the College of Physicians!

II.

1. *A Treatise on Artificial Pupil, &c. &c.* By Sir W. ADAMS. London, 1819. 8vo. pp. 134.
2. *Report submitted to His Royal Highness the Commander in Chief, upon the subject of the Outpensioners of Chelsea Hospital, that have been under Treatment for Diseases of the Eyes, &c.* London, 1819. 8vo. pp. 96.
3. *A Treatise on the Operations for the Formation of an Artificial Pupil, &c. &c.* By J. G. GUTHRIE. London, 1819. 8vo. pp. 209.

OPERATIONS for an artificial pupil formed no part of ancient surgery. This is a modern and a British invention, and the lustre of its merit falls upon the name of Cheselden. The cornea and the iris are those parts of the eye the morbid state of which indicates the propriety of such an operation. These tunics may be diseased individually, or conjointly; and the crystalline lens may participate the derangement of either, or of both. But a disorder of the lens alone, although perfectly obstructing the rays of light, and thereby nullifying the uses of the natural pupil, never demands the creation of an artificial one; such a disorder is cured by one of the various operations for cataract. Cheselden, it appears, opened the iris in two different ways; for, as we understand his own description in the Philosophical Transactions, and as Sharp represented him, sometimes he carried a knife into the anterior chamber, and cut backwards; at others, as Morand

once saw him perform, his knife traversed the posterior chamber, and he divided the iris forwards. The first mode was thus practised: the lids being opened by a speculum, he introduced a *speur-pointed* single-edged knife, with its flat surface parallel to the iris, through the sclerotica, at the part punctured in the operation of depression. He carried the point of the knife through the iris into the anterior chamber, until it reached the nasal margin; he then turned its edge backwards, and, in withdrawing the knife, divided the iris in its transverse diameter. But when the obliterated pupil was complicated with cataract, he opened either above or below this line, erroneously imagining that in such a case the lens was smaller than natural, and that he could, by such deviation, avoid its substance.—Adams, p. 10.

But Cheselden's operation did not *take*; Sharp and Warner undervalued it; Richter, Janin, and Wenzel condemned it. It was not, however, destined to everlasting neglect; and Sir W. Adams has, if we credit his own statements, not only revived but improved it, with such glory to himself, and such benefit to mankind, that, in his own experience, "the operation for artificial pupil, either with or without opaque lens, *as rarely fails* as any other important operation performed upon the eye."—pp. 12, 32. But whence to Sir W. Adams a success which the imitators of Cheselden could not realize? In the first place, he uses a better instrument. It resembles a common dissecting scalpel. "Its length is two-thirds of an inch, and it is nearly a line in width, with a straight back. The edge near the point, which is sharp, is of a curved form, and cuts backwards towards the handle about three lines."

1. Now let us suppose a case of simple obliteration of the pupil, the lens previously removed by extraction, depression, or absorption, whether from a blow, or the needle of the surgeon:—the iris scalpel, *its edge turned backwards*, must be introduced through the coats of the eye at their external part, about a line behind the iris, and in its transverse diameter. The point should then be made to penetrate into the anterior chamber, somewhat less than one-third of the width of the iris from its ciliary margin. The scalpel is then to be carried cautiously towards the inner canthus, *its edge in contact with the iris*, until it has traversed more than two-thirds of its width, when it should be drawn almost out of the eye, making the most delicate pressure with the edge against the iris, lest it should be detached from the ciliary ligament. If the division is not sufficient, the scalpel should be again carried forward, and withdrawn. "This is to be repeated as often as it may be necessary, to effect a division of the iris to the extent of a third part of its diame-

ter." In the above process we recognise the second reason of that success wherein Sir W. Adams excels the *precise* followers of the example of Cheselden, to wit, the simultaneous pressure and withdrawal of the scalpel, and the repetition of these movements, delicately effected, as often as may be needful.

2. But obliteration of pupil may be combined with cataract, capsular, lenticular, or both. The same process as described is adopted by Sir W. Adams, with this addition, founded on the peculiarities of the case:—He cuts up the lens, and brings the fragments, some into the anterior chamber, some, as plugs, he places betwixt the lips of the new pupil. If the cataract be capsular, he detaches and shreds it as much as he can, when it is soft; *if tough*, he leaves its *lower attachment undisturbed*, depressing the capsule below the axis of vision; or, should it be, unluckily, quite separated, he conducts it forward, and extracts through the cornea.

3. Where there is opacity of cornea, diminution of pupil, owing, perhaps, to protrusion of iris through some former ulcer, with transparency of crystalline, Sir William drops his scalpel, and employs excision (corectomia) as practised by Gibson. This ingenious Surgeon effected protrusion of the iris through an opening in the cornea, and excised the protruding portion with scissors. Upon this the iris recedes, and a proportional aperture, the artificial pupil, is seen in its substance. But there was in some of Gibson's operations an inconvenience which Adams never suffers to mar his own: we mean a double pupil, the new and the natural, separated by a strip of iris more or less wide. This, it is clear, must be obviated by including in the protruded excised piece of iris the border of the old pupil; to effect this, Adams pulls out with forceps a sufficient portion of iris. But if he finds that with forceps he cannot manage his point, he inserts a hook, with which he extracts enough of iris, or else ruptures it. But an adhesion of iris to cornea may be so slight, and opacity of cornea so trivial, that the attachment may be easily severed, when the natural pupil will regain its pristine size in the receded iris.

4. If there exist "complete obliteration of the pupil, with adhesion of the pupillary margin of the iris to the cornea," Adams operates in one of two ways. In this supposed case there is nothing of transparent cornea but a mere rim, so narrow that it is quite needful for the new pupil to be as broad as the lucid portion. He prefers the temporal to the nasal side, unless on this there be more width of transparency. One method of operation is the division of

iris by the scalpel, as in the first and simple case (coretomyia), only that now the pupil must be formed vertical, the knife entering below, or, which is better still, above. Another mode is that which Scarpa lauded so much in his first publication on Ophthalmic Diseases, separation of the iris from the ciliary ligament (coredialysis). Scarpa, who passed his detaching instrument through the sclerotic, has very much abated, latterly, his confidence in coredialysis, for he found pupils thus formed frequently, after a lapse of time, become so contracted as to be even filiform. This tendency to contraction Adams obviates; for he drags a piece of iris through an opening in the cornea, therein effects its strangulation, and of course maintains a lasting dilatation of the new pupil.—p. 52.

Anterior coredialysis, so to denominate it, as opposed to Scarpa's, was practised in one way so early as 1787 by Assalini; and Reisinger proposed the very mode which Adams prefers, viz. strangulation of a piece of iris in the cornea.

"They both make an opening in the cornea, and thereby detach the iris; the former by means of a pair of forceps, and the latter by a double hook, which is so constructed as also to act as a pair of forceps."

Sir William saw Assalini make a small opening in the margin of the cornea, at the furthest point from the remaining transparent portion; he introduced forceps, and having laid hold of the part of the iris which he wished, he repeatedly made gentle efforts, until he detached it sufficiently. Then he withdrew the forceps including the separated portion of iris, which he cut off with fine scissors, close to the corneal flap. This corectomyia, as well as coredialysis, Reisinger himself advises, where there is "difficulty of drawing the iris out of the cornea, or the doubt that the cicatrix of the wound in the cornea might increase the opacity of this membrane."—p. 28.

We have thus sketched an outline of the practice of Sir W. Adams in the formation of artificial pupils. We cannot concede to him, what he seems anxiously to claim, a merit equal to that of originality in either of his operations, but simply the minor honour of improving upon the conceptions of others; of men whose comprehensive genius embraced generalities and principles, and left additions and modifications and retail to smaller minds.

Mr. Guthrie modestly presents himself before us with little of the personal pronoun, and nothing of the possessive. His treatise consists chiefly of descriptions of morbid states, and of the peculiar operations of other eminent Practitioners: it

is a compendium of their various processes. He boasts of no novel instruments, no peculiar mode of operation, his own inventions: and the first page of his treatise contains the following judicious and conciliating sentiments:—

“ The operation must vary according to the cause and nature of the morbid state requiring it; no one method being applicable to every variety of disease, any more than in cataract. We find, however, on inquiring into the history of this operation, that the same predilection for one method has prevailed in all cases nearly as much as in cataract, and with the same bad effect; although it must have been obvious, that, by adopting more liberal and scientific views of the means of cure, by adapting these means to the end, the results would have been more fortunate. But the idea of the necessity of a particular method, peculiar to each oculist, pervaded every branch of this art for a long time, and very much retarded its improvement. For if one mode of operating would not answer in every case, it was either abandoned, from being found useless where it should never have been tried, or estimated too slightly from the paucity of cases in which it was really found to be efficient. This was not all; for, from the want of due discrimination in the application of those operations, many have lived for years in misery who might easily have been restored to comparative happiness.”

It is not for us to detail all the various operations for artificial pupil which successive oculists have advised or practised, and of which Mr. Guthrie narrates no fewer than forty-six, from that of Cheselden, nearly a hundred years ago, down to the method of the present Professor Quadri, of Naples. An artificial pupil should be formed, if possible, of a size and shape similar to those of a natural in moderate light. The site, likewise, of the natural aperture is the most eligible; and, next in order, “ 1. The inferior part of the iris inclining inwards. 2. The internal, a little below the transverse diameter of the eye. 3. The inferior and external.”—“ In general, however, the selection of the place in which the iris is to be perforated depends more on the transparency of the cornea than upon the choice of the operator.”—“ The central part of the iris frequently appears unsound, whilst it is more healthy at its outer or inner margin, in which case one of these places should be selected.” The external and internal margins of the iris, immediately on a line with the equator of the eye, are particularly unfavourable for corectomy, on account of the long ciliary arteries entering at these parts.— p. 81.

This remark applies also to corectomy through the sclerotic. The kind of case suited to corectomy is, according to Sir W. Adams, “ where the transparency of the cornea admits of the iris being separated at its uppermost part. The

consequence of this mode of proceeding, is for the iris to become softened by the tumours of the eye, when it shrinks downwards, leaving a new pupil opposite to the upper part of the cornea." — p. 52, Adams.

We are not quite satisfied of the philosophy of this quotation; but we give Sir W. full credit for his fact.

I. A closed pupil, without a lens, especially after extraction of the cataract, is favourable for the *coretomy* of Adams; but if there be behind the iris a capsule, so adherent and so tough that the iris would rather yield *peripherally* than to the edge of the knife, *coredialysis* is indicated; for *coretomy* would not procure a sufficient aperture.

Of this last operation, we have given no other mode than Gibson's, improved by Adams; but as Maunoir advises another, much commended by Scarpa and Guthrie, we beg leave likewise to insert its description. He incises the cornea, opaque or not, as externally as possible, about the length of three lines; and one line from the sclerotica. He introduces a pair of scissors, with very thin and narrow blades; where united, not thicker than a probe, seven-tenths of an inch long, and bent at the joint to an angle of 140 degrees. The superior blade, to pass between the iris and cornea, is round pointed; the inferior, to penetrate the iris, very sharp at the point, on the inside, and for a line on the back; it is a little shorter likewise than the superior. This blade, pushed through the iris, he carries on transversely to the intended point, and then sharply closes the scissors. He repeats the stroke in a different direction, near to the former, so as to make a triangular incision, whose apex is the site of the old pupil, whose base is at the incision in the cornea. The flap, in general, retracts upon itself. The principle of Maunoir's operation Scarpa retains in two different cases; but he modifies its practice.

II. In the first case, the pupil is not quite obliterated, but dragged behind an opaque portion of cornea; the lens pellucid. He uses Maunoir's scissors, but each blade is terminated by a button. One blade he thrusts through the pupil; the other he retains in the anterior chamber, and makes the V incision.

III. In the second case, the lens tough and opaque, the capsule adherent, he practises Maunoir's own operation; but he cuts deeper: he includes the lens in the closure of the scissors, and brings its fragments, for extraction, through the cornea, into the anterior chamber.

The capsule is treated in the same manner.

IV. There takes place at times, after iritis, a deposition of lymph upon the capsule, uniting it to the uvea, and contracting the pupil — cataracta lymphatica. An intermixture of

blood denominates it *c. erumosa*. The lens may be opaque or clear; but generally it is soft, and *detachable* with ease. The iris will retract, from belladonna, to the diameter of a line or more, but it leaves a portion of pigment upon the lymph on the capsule, simulating the dark look of a pupil — cataracta choroidalis.

“ In such cases, the motion of the iris appears only to be prevented in consequence of its attachment, and the objects of an operation seem to be the freeing of the attachment and the removal of the opaque parts. This may be accomplished by the introduction of a needle behind the iris, so as to separate it from its attachments; and subsequently to open into the texture of the lens; for, as the passage of the needle behind the iris-necessarily renders the lens opaque, if it be transparent, the removal of it becomes necessary to vision.”
— p. 125.

Immediately after the operation, the pupil must be dilated by belladonna, and maintained in dilatation until the lens be dissolved. If, however, from interstitial deposit in the iris itself, after all this detachment, the pupil will probably refuse to dilate satisfactorily, with the point of the needle divide its inner or outer margin. We entreat our readers to remember the fact stated in the last quotation — that lenticular opacity will result from punctation by the needle.

Because this recollection will decide their judgment oftentimes on the peculiar operation the case may demand — where the lens (we include the capsule in this term) is pellucid, it ought to be so preserved; and all pointed, all edged instruments menace its transparency. Hence the value of Maunoir's scissors, with buttoned ends, which will not wound the lens, in that species of case where the pupil is not totally obliterated. If the lens be in any case unluckily wounded, it should be disposed of at once; for it will demand operation sooner or later; and in the management of an opaque or clear, but wounded lens, it seems to us that the best directions the operator can in general obey, are those of his own judgment, upon cataract in general; — let him depress or recline, lacerate or extract, as his bias, moderated, doubtless, by the possibilities of the case, may indicate. He will not, however, be able to extract a whole lens, unless his artificial pupil be prodigiously big.

V. An extreme hardness, perhaps ossification of the lens or capsule, indicates, in the opinion of Guthrie, (and we beg leave to coincide,) the operation of Scarpa, with Maunoir's scissors, *not* the operation of Adams. It is advised by all, that such a lens should be extracted: but Adams first performs *his* division of the iris through the sclerotic. Guthrie

deprecates, in this process, a double operation, and advises that of Scarpa. And he notices that Stodart, 401, Strand, makes a lancet-edged scissors better fitted to cut the solid lens than the common Maunoir's.

VI. A pupil may be formed, and the capsule or an adventitious membrane adhere to its edges in every direction. With Scarpa's, or a straighter needle, detach the veil, except internally or below ; at which spot depress it ; it will shrink, and remain out of the axis of vision. If totally detached, push it into the anterior chamber. — p. 149. Vide Adams's mode in a similar case, above described, page 408.

VII. Suppose a case wherein opacity of cornea is the only cause of injured vision, the anterior chamber, iris, and crystalline healthy, a rim of cornea alone transparent, corectomia, according to Guthrie, is indicated, " and in no instance should any other operation be attempted." The mode of performance we have already noticed ; it is Gibson's, as improved by Adams.

VIII. When the iris is attached to some part of the cornea, and an opaque lens demands corectomia, the attachment should not be severed before the strokes of the knife are given ; for the stretched iris affords a proportionate resistance to it.

IX. When an iris is *convex*, not adherent to a clear cornea, the pupil nearly closed, its edge firmly adherent, the author believes that the surface of the iris may be reduced to the natural plane, by effecting a communication, supposed to be destroyed, betwixt the two chambers ; the posterior being the chief secerner of aqueous humour. One of three operations may be practised : — 1st. Himly's depression or division of lens, and making an artificial pupil ; or, 2d. The corectomia, with extraction of Scarpa, detailed above ; or coredialysis. The first is a compound mode ; the treatment of the lens forming one operation ; the formation of the pupil another.

At a subsequent period, when the anterior chamber has resumed its original dimensions, the *sclerotikectomy* of Messrs. Autenrieth and Schmidt, of Tübingen, to make a window in the sclerotic, when the cornea is totally dark, appears to us too *visionary* to afford a chance of vision : we may, however, be improperly exsanguine, and we wait for further experiments.

We have not noticed Mr. Guthrie's classification of those diseased states of the eye which demand a new pupil, because it is not prehensible enough to please us ; it confuses rather than elucidates. Nor shall we trouble ourselves to propose a substitute ; for we think that the subject can well dispense with any ; and, after all, we fear that the vast complexity, the various

combinations of the morbid phenomena, preclude, perhaps, the formation of a better nosology. We rise from the book with an impression, that every operator must, after all, depend more upon himself, in his selection of any peculiar mode of operation, than upon the hortations of others; that, as yet, this branch of surgery is devoid of rules, precise and applicable to every variety of derangement; that no two Practitioners are agreed on all points; and that there is, perhaps, more need in the business of a steady, yet delicate and mobile hand, than of a very profound head. We have in this analysis adduced what we deemed most worthy a place in the compressed sphere of a review: *the treatment* of simple closure of pupil, with an *absent* lens; with cataract; *the treatment* of diminished pupil, with a pellucid crystalline; of a case wherein a mere rim of cornea remains transparent; of cataract, with opacity of cornea; of an adventitious membrane, deposited on the capsule; of the cataracta choroidalis; of extreme hardness of the lens; of nearly complete abolition of the anterior chamber. It has been shown, that different oculists commend in almost every case a different mode; and it has been inferred, that we had best all of us think and act for ourselves. We have described the iris scalpel of Cheselden, and that of Adams; the scissors of Maunoir; the modification thereof, by Scarpa; and we will now add a description of an instrument invented by Langenbeck, which obtains respectful notice from Mr. Guthrie. It is for the operation of coredialysis. "It consists of a silver tube, having a very small gold one affixed at one end, into which is inserted a small hook, which is moved backwards and forwards by a spring in the silver tube, but confining the motion of the hook to two lines." A very small opening should be made in the cornea, lest the iris, when brought out, recede. The hook enclosed in the golden tube should be directed to the desired spot of iris, and then pushed out by the spring to the extent of one line, which will enable it to penetrate the iris. When affixed, it should recede into the tube, drawing with it the iris, which will be caught between it and the end of the tube. The hook beginning to recede, a small black spot will be seen at the edge of the iris, from its incipient separation; and the hook should be inserted at, or even under the edge of the sclerotica, as near as possible to the ciliary processes. The hook must recede gradually, the finger be kept steadily on, and moved slowly with the knob, regulating the spring in the silver tube. The opening (into the cornea) should be made as near as possible to the spot where the separation is to be effected; the pupil so large that the prolapse, and subsequent opacity

cannot obstruct the light. When the hook has receded to the golden tube, carrying with it the iris, the coreoncion (that is the name of the instrument) should be gently withdrawn, moving it slowly up and down, to loosen the upper and lower attachment of the iris. The coreoncion requires but a small corneal incision, on which the correct strangulation of the iris depends. Langenbeck has never with this hook injured the capsule of the lens.—Guthrie, p. 63.

After all, coredialysis is the least eligible operation, and must be omitted if either of the others be applicable to the case.

Touching the treatment after operation we deem it needless to advance any admonition; the promptitude, the vigour, which are required to combat internal ophthalmia, and the magical influence of mercury upon iritis, are universally known. We just remark, that if inflammation close an artificial pupil, it is by contracting it after corectomia; and by depositing lymph on the capsule, necessitating the subsequent removal of the lens, after corectomia.—Adams, p. 115.

We shall be expected, perhaps, to say a word about that difference of opinion which subsists betwixt the military Surgeons and Sir W. Adams. The report published by each party will enable the world to estimate it aright. The members of our Profession are not ignorant that a civil Practitioner, holding no official rank whatever, received an appointment of such a nature as to give him some degree of authority over official men; and certainly involving a proclamation to the whole of Great Britain, that he possessed a superiority of skill to any Surgeon in the great crowd of her official servants, or to the whole of them together; and that, too, in a branch of their own art. We dare say that on this occasion they avowed the sentiments expressed by the patriotic Greek, who, when he failed of election to a certain post, exclaimed, that he was glad to find his country possessed a son that could serve her better than himself. But has this weightier service been afforded to his country in the present instance, by the man whose obtrusion into office was pompously preceded by such a boast as, in the following quotation, we shall extract from his own statement?—

“ In 1810, I had the honour to propose to Sir David Dundas, the late commander-in-chief, the formation of an institution for the exclusive treatment of pensioners dismissed the army, blind from the Egyptian ophthalmia; asserting, that many men might thereby be restored to the service, and large sums of money, annually expended in pensions, might be saved to the country.”—Appendix, p. 1.

This gentleman will tell us, perhaps, that he has redeemed his pledge—and that the violation of established usages, and of the feelings of so many worthy men, over whom he was advanced, was one of those unhappy but necessary events, which will ever and anon occur, when petty objections must be swallowed up in the imperative sense of public duty. “There have been,” he reports, “*one hundred and seventeen* patients discharged from the Ophthalmic Institution between the period of its establishment, December 1, 1817, and January 30, 1819.” — “Of *forty-seven* operations for artificial pupil, *thirty-eight* have perfectly succeeded.” That is, we should construe it, thirty-eight pensioners have been “restored to the service,” or thirty-eight pensions have been “saved to the country.” But what will our readers judge of that presumption which engendered such confident promises, and of that credulity which trusted in their sobriety, when he reads the following extract from a report by such honourable and competent witnesses as Sir James M’Gregor and Dr. Franklin?—

“We are not aware that any of these (117) persons had their vision sufficiently improved to be considered fit for duty as soldiers; those examined by us, we can state with confidence, had not. Some of them may, it is true, have been deemed by him (Sir W.) fit for duty, and may have been reported as such; but on rejoining their regiments, they were either considered to be unfit for duty, or, relapsing shortly afterwards, were discharged. Two men of this description, (Philips and Pike,) are to be found in this report, who were reported by Sir William Adams as fit for duty, and were ordered to join their regiments at Gibraltar; but, on arrival at the dépôt, in the Isle of Wight, they were deemed unfit for duty; and have subsequently passed the Chelsea Board.”—Report, &c. p. 11.

And how many of these patients had these gentlemen *not* seen? Thirteen. Of these, two have been just noticed as precipitately reported serviceable; and of the remaining eleven, we really do not think, from his own statements, that even Sir W. Adams would deem more than two, by any means, fit for *military duty*.

But we conclude, with self-gratulation, that *our* pupils are as yet natural; deprecating the possibility that we should ever be reduced to substitutes so artificial as to disable us from seeing the merits of a case wherein the Surgeons of the British army and an individual oculist are the parties appellants.

III.

Pharmacologia ; or, the History of Medicinal Substances. By JOHN AYRTON. PARIS, M.D. F.L.S. Third Edition. 8vo. London, 1820.

WE hail the appearance of a third edition of this work as a proof of the greater attention to the study of the *materies medica* and pharmacy than was usual a few years ago. Notwithstanding the reveries of the old chemical Physicians, respecting the existence of one single universal medicine which should cure all constitutional diseases, had long passed away like the baseless fabric of a vision, yet there still existed in the minds of the majority of the Profession, an undue propensity to rely upon the exhibition of mercury (the modern panacea), iron, antimony, bark, ardent spirit, and a few other potent remedies, in different doses, rather than upon the skilful use of a more varied *materies medica*: a preference which was in some measure cherished by the legal necessity imposed on the great majority of actual Practitioners of furnishing medicines to their patients, and their consequent wish to make as small a stock as possible, and especially of perishable articles, serve their purpose.

It may, perhaps, be said, that this preference of a paucity of drugs was also owing, in part, to the want of sufficient chemical knowledge as to the compounding of a more varied list, from an apprehension of introducing substances which might have the effect of neutralizing or even altering the intended action of the main ingredient; especially as the old dispensaries afforded but a slender guide in this respect. Pharmaceutical chemistry has, however, received so much illustration from the labours of the German and French Apothecaries, that the compatibility or incompatibility of substances with one another in the same formula are well ascertained.

Still, however, there remained a want of a scientific treatise in our vulgar tongue respecting the mode of compounding medical formulæ, or the art of prescribing; and it is to supply this want that Dr. Paris has principally directed his attention. Not that he neglects the other parts of pharmacy, usually giving under each article of the London pharmacopœia, (to which alone he very properly confines his attention, and the *materia medica* and preparations of which he has incorporated into a single alphabetical series,) its sensible qualities, its chemical composition, its relative solubility in different solvents, and the proportions in

which it should be mixed or combined with different bodies, in order to produce suspension or saturation, the substances that ought not to be mixed with it, the most eligible forms in which it can be exhibited, the proper doses to secure specific effects, these medicinal uses and effects, the official preparations of the simple substances, and, lastly, the usual adulterations. As he notices all these in a most distinct and satisfactory manner, it may easily be conceived, that this work forms a most excellent manual for the Practitioner of medicine; and from a perusal of it, we can recommend it in the strongest terms, not only to the junior members of the Profession, but even to the most experienced, who will find in this volume many new observations.

The work is preceded by an historical introduction, the substance of four lectures delivered by the learned author to the Royal College of Physicians, on the Philosophy of the *Materia Medica*; in which he investigates the causes that have in different ages operated in producing the revolutions that characterize the history of medicinal substances; namely, superstition, credulity, scepticism, false theories, devotion to authority, and established routine, in which he gives an account of the mischievous interference of the college of Paris, in regard to the use of antimony; the assigning to art that which the effect of unassisted nature, the ambiguity of nomenclature, the progress of botanical science, the application and misapplication of chemical philosophy, the influence of climate and season on diseases, as well as on the properties and operations of their remedies, the fraudulent adulteration of medicines, the unseasonable collection of plants, and the obscurity which has attended the operation of compound medicines.

We perfectly agree with Dr. Paris, in his observations on the frequent changes of names which the colleges have adopted from the philosophical chemists. His words are:—

“ I am unwilling to join in the commendations which have been so liberally bestowed upon our chemical nomenclature; nay, I am disposed to consider it as a matter of regret, that the names of our medicinal compounds should have any relation to their chemical composition; for, in the present unsettled state of this science, such a language must necessarily convey theory instead of truth, and opinions rather than facts; in short, it places us at the mercy and disposal of every new hypothesis, which may lay our boasted fabric in ruins, and, in its place, raise another superstructure, equally frail in its materials, and ephemeral in its duration: thus CORROSIVE SUB-LIMATE was a *muriate* of mercury, or an *scymuriate*, until Sir H. Davy established his new theory of chlorine, and then it became a *bichloride*. At some future period, chlorine will be found to be a com-

pound, and then it must have another name: for the same reason the term CALOMEL is surely to be preferred to *submuriate*, or *chloride*. TARTARIZED ANTIMONY again has been called by our nomenclatural reformers, the *tartrate of antimony and potass*; but is it a triple compound? Gay Lussac thinks not, and considers it as a combination, in which *cream of tartar* acts the part of a simple acid. The French, in their new *codex*, are still more extravagant in their application of chemical nomenclature; thus, the subcarbonate of potass is called by them *sub-deuto-carbonas potassii*. The first part of this quadruple name indicates the comparative quantity of acid in the salt, the second that of oxygen contained in the base, the third announces the acid, and the fourth the basis of the base."

Although we conceive it of little consequence, yet we cannot but imagine that Dr. Paris is in an error in attributing the origin of alchemical notions to the Arabs. In our opinion, those notions first originated in Egypt, among the Christian clergy: this appears evident, from the high ecclesiastical rank of the principal Greek authors, several of whom were anterior to the age of Arabian learning, and also from the religious mysteriousness of their writings; whereas the Arab authors, as Geber, are remarkable for their clearness; and, although they give processes for the production of apparent gold and silver, yet acknowledge the imperfection of them, and discuss a number of theories, by the reduction of which to practice it had been judged possible to produce perfect metals; so that nothing can be more erroneous than deducing the etymology of the word gibberish, from Geber, as stated by Dr. Paris, from Dr. Johnson.

Another trifling mistake in the history of chemistry refers to the name of the great Coryphæus of the chemists, the redoubted Paracelsus. Dr. P. informs us, that he termed himself Philippus Theophrastus Bombastus Paracelsus de Hohenheim; but although here are names enough even for a person of no ordinary abilities, yet one is omitted, and the order of the others disturbed; his name, as stated by himself, being Aureolus Phil. Par. Theoph. Bomb. de H. As the activity and violence of this man were the means of rousing the Profession from the study of the old Greek Physicians to that of nature, and the origin of our modern improvements, so we ought not to detract either from his name or his merit.

In the second part of this introduction, Dr. Paris investigates the objects to be obtained, and the resources which are furnished, by medicinal combination, according to the following order:—

"Object 1. To promote the action of the basis, by combining it with substances which are of the same nature, *i. e.* which are in-

dividually capable of producing the same effects, but with less energy than when in combination with each other; or by combining the basis with substances of a different nature, and which do not exert any chemical influence upon it, but are found by experience, or inferred by analogy, to be capable of rendering the stomach, or system, more susceptible of its action.

" 2. To correct the operation of the basis, by obviating any unpleasant effects it might be likely to occasion, and which would pervert its intended action, and defeat the objects of its exhibition.

" 3. To obtain the joint operation of two or more medicines, which have different powers, and which are required to obviate different symptoms, or to answer different indications.

" 4. To obtain a new and active remedy not afforded by any simple substance, either by combining medicines which excite different actions in the stomach and system, in consequence of which, new or modified results are produced; or by combining substances which have the property of acting chemically upon each other, the results of which are the formation of new compounds, or the decomposition of the original constituents, and the development of their more active elements; and also by combining substances, between which no other chemical change is induced than a diminution or increase in the solubilities of the principles in which their medicinal virtues reside.

" 5. To afford such a form as may be efficacious, agreeable, or convenient."

In that great and important question, Whether any chemical proofs of the presence of white arsenic, short of its actual reduction to the state of metal, can be depended upon, or ought to be received as evidence in the courts of criminal law? Dr. Paris says,

" That after a full experimental investigation of the subject, and after an impartial review of all the facts which bear upon the question, the author feels no hesitation in declaring it to be his conviction, that white arsenic may be detected without any fear of fallacy by a proper application of tests, and that the contrary opinion is entirely founded in error."

Now, although we may accede to this proposition, when the examiner is a professed student of chemistry, and versed in its manipulations, we cannot by any means agree to it in cases when the examination is made by a person who has not bestowed continual attention on that science, but who has merely studied it slightly as a subordinate branch of medicine, or, perhaps, of pharmacy; and, therefore, as the increasing number of books on medical jurisprudence will bring, of necessity, the subject of poisoning continually before the public eye, and we may, of course, expect a great increase of that horrid crime, and a greater skill in exhibiting deleterious substances; so we fear, on the other hand, that a desire of appearing to possess more knowledge of chemistry than

they really do, will induce many to rest satisfied with slight indications, to give decisive evidence in doubtful cases, and thus bring many innocent persons to a shameful death. We therefore think, contrary to Dr. P., that as it is better that ten guilty persons should escape than a single person, (or, to speak more properly, family, as all are implicated in the shame,) should suffer, so nothing but an actual procuring of the deleterious article should be regarded by a medical person as warranting his affirming the party to be poisoned by it; and that the use of pretended tests should be regarded only as preliminary experiments to point out the method of obtaining the arsenic, or other poisonous substance.

In the examination of elaterium, a substance whose action on the human body is still more violent than arsenic, Dr. Paris has discovered a new vegetable principle. The active principle of this plant is lodged only in the juice around the seeds, and in so small a quantity, that Dr. Clutterbuck (*MEDICAL REPOSITORY*, Vol. XII. No. 67,) obtained only six grains from forty cucumbers, and even of this fecula, or feculence, as Dr. Paris proposes to call it, although an eighth part of a grain will purge violently, yet not more than one-tenth of this virulent substance possesses any active virtues. As Dr. P.'s experiments are new, and a very excellent supplement to Dr. Clutterbuck's paper, we shall insert them at full length; —

“ Experiments. — Series the First.

“ A. Ten grains of elaterium, obtained from a respectable chemist, and having all the sensible properties which indicated it to be genuine, were digested for twenty-four hours, with distilled water, at a temperature far below that of boiling; *four grains* only were dissolved.

“ B. The solution was intensely bitter, of a brownish yellow colour, and was not in the least disturbed by alcohol, although a solution of *iodine* produced a blue colour; the solution, therefore, contained no gum, and only *slight traces* of starch.

“ C. The solution, after standing twenty-four hours, yielded a *pellicle* of insoluble matter, which, when burnt, appeared to resemble *gluten*.

“ D. The six grains which were insoluble in water were treated, for forty-eight hours, with alcohol, of the specific gravity .817, at 66° of Fahrenheit; a green solution was obtained, but by slow evaporation *only half a grain* of solid green matter was procured. The insoluble residue obstinately adhered to and coated the filtre, like a varnish, and completely defended the mass from the action of the alcohol: it is probable that it consisted principally of *fecula*.

“ Experiments. — Series the Second.

“ E. Ten grains of elaterium, from the same sample, were treated with alcohol, of the specific gravity .817, at 66° Fahrenheit, for

twenty-four hours; upon being filtered, and the residuum washed with successive portions of alcohol, the elaterium was found to have lost only 1.6 of a grain. The high specific gravity of the alcohol in this experiment was important; had it been lower, different results would have been produced.

" F. The alcoholic solution, obtained in the last experiment, was of a most brilliant and beautiful green colour, resembling that of the oil of cajeput, but brighter: upon slowly evaporating it, 1.2 grains of solid green matter was obtained.

" G. The solid green matter of the last experiment was treated with boiling distilled water, when a minute portion was thus dissolved, and a solution of a most intensely bitter taste, and of brownish yellow colour, resulted.

" H. The residue, insoluble in water, was inflammable, burning with smoke, and an aromatic odour, not in the least bitter; it was soluble in alkalies, and was again precipitated from them unchanged in colour; it formed, with pure alcohol, a beautiful tincture, which yielded an odour of a very nauseous kind, but of very little flavour, and which gave a precipitate with water; it was soft, and of considerable specific gravity, sinking rapidly in water; circumstances which distinguish it from common resin; in very minute quantities it purges. It appears to be the element in which *all* the powers of the elaterium are concentrated, and which have been denominated *elatin*.

" I. The residuum, insoluble in alcohol, weighing 8.4 grains, (Exp. E.) was boiled in double distilled water, when 5.9 grains were dissolved.

" J. The above solution was copiously precipitated *blue*, by a solution of *iodine*, and was scarcely disturbed by the *per-sulphate of iron*.

" K. The part insoluble, both in alcohol and water, which was left after experiment I. amounted to 2.5 grains; it burnt like wood, and was insoluble in alkalies."

From these experiments, Dr. Paris expresses the chemical composition of elaterium in the following manner:—

	F. Water4
	B. Extractive.....	2.6
I. {	B.D.J. Fecula	2.8
	C. Gluten5
	K. Woody matter	2.5
	H. <i>Elatin</i>	
	G. Bitter principle	1.2

10

The bitter principle in elaterium is very distinct from its extractive matter; the solution obtained in Exp. G. being diluted and swallowed, produced only an increase of appetite; and the solution B. produced no effect whatever.

Dr. Paris mentions the most generally used nostrums with the due abhorrence of medicines whose preparation, being

unknown, are, of course, liable to be prepared differently by different persons, however well-intentioned they may be, for want of some certain standard; but we are surprised to see one excepted from this merited proscription, at p. 260, whose name we omit, not wishing to be instrumental in giving it publicity, where he not only informs us that the medicine "*is admirably adapted for domestic use,*" but also obligingly gives the names and residences of the proprietor and his confidential agent. We know not how to account for this departure from his accustomed tone respecting these arcana, having too high an opinion of Dr. Paris to suspect, even for a moment, any interested motives for this lenity, and, what is more, praise.

He mentions, in his preface, Mr. Barry's patent extracts, prepared *in vacuo*, and conceives, *à priori*, that the results must be more active than those obtained in the ordinary way. Respecting this subject we may observe, that having examined some of these extracts, we find that of belladonna inferior in smell to the common; and, also, that the extract of senna became speedily covered with mould, and those of papaver and taraxacum are beginning to grow mouldy, although not the least mouldiness is to be found on the common extracts of the same plants, which were obtained before the others, and all the pots have been kept in the same drawer. It would appear, therefore, that the heat used in preparing these extracts, *in vacuo*, is not sufficient to destroy the vegetative power of the seeds or sporules of the fungi adhering to the plants.

PART III.

SELECTIONS.

An Account of a Membrane in the Eye, now first described
By ARTHUR JACOB, M.D., Member of the Royal College of Surgeons in Ireland, Demonstrator of Anatomy and Lecturer on Diseases of the Eye in the University of Dublin.

(From *Philosophical Transactions* for 1819, Part II.)

[Continued from page 335.]

THE appearance of this part I find to vary in the different classes of animals, and in man, according to age and other circumstances. In the fœtus of nine months it is exceedingly delicate, and with difficulty displayed. In youth it is trans-

parent, and scarcely tinged by the black pigment. In the adult it is firmer, and more deeply stained by the pigment, which sometimes adheres to it so closely as to colour it almost as deeply as the choroid coat itself; and to those who have seen it in this state, it must appear extraordinary that it should not have been before observed. In one subject, aged fifty, it possessed so great a degree of strength as to allow me to pass a probe under it, and thus convey the vitreous humour covered by it and the retina from one side of the basin to the other; and in a younger subject I have seen it partially separated from the retina by an effused fluid. In the sheep, ox, horse, or any other individual of the class *mammalia* which I have had an opportunity of examining, it presents the same character as in man; but is not so much tinged by the black pigment, adheres more firmly to the retina, is more uniform in its structure, and presents a more elegant appearance when turned down over the black choroid coat. In the bird, it presents a rich, yellow brown tint; and when raised, the blue retina presents itself beneath: in animals of this class, however, it is difficult to separate it to any extent, though I can detach it in small portions. In fishes, the structure of this membrane is peculiar and curious. It has been already described as the medullary layer of the retina by Haller and Cuvier*, but I think incorrectly, as it does not present any of the characters of nervous structure, and the retina is found perfect beneath it. If the sclerotic coat be removed behind, with the choroid coat and gland so called, the black pigment is found resting upon, and attached to, a soft friable thick fleecy structure, which can only be detached in small portions, as it breaks when turned down in large quantity. Or if the cornea and iris be removed anteriorly, and the vitreous humour and lens withdrawn, the retina may be pulled from the membrane, which remains attached to the choroid coat, its inner surface not tinged by the black pigment, but presenting a clear white, not unaptly compared by Haller to snow.

Besides being connected to the retina, I find that the membrane is also attached to the choroid coat, apparently by fine cellular substance and vessels; but its connection with the retina being stronger, it generally remains attached to that membrane, though small portions are sometimes pulled off with the choroid coat. From this fact I think it follows, that the accounts hitherto given of the anatomy of these

* Element. Phys. tom. v. lib. xvi. sect. ii. Cuvier, Leçons d'Anat. Comp. tom. ii. p. 419.

parts are incorrect. The best anatomists* describe the external surface of the retina as being merely in contact with the choroid coat, as the internal with the vitreous humour, but both totally unconnected by cellular membrane, or vessels, and even having a fluid secreted between them : some indeed speak loosely and generally of vessels passing from the choroid to the retina ; but obviously not from actual observation, as I believe no one has ever seen vessels passing from the one membrane to the other. My observations lead me to conclude, that wherever the different parts of the eye are in contact, they are connected with each other by cellular substance, and, consequently, by vessels ; for I consider the failure of injections no proof of the want of vascularity in transparent and delicate parts, though some anatomists lay it down as a criterion. Undoubtedly the connexion between these parts is exceedingly delicate, and hence is destroyed by the common method of examining this organ ; but I think it is proved in the following way. I have before me the eye of a sheep killed this day, the cornea secured to a piece of wax fastened under water, and the posterior half of the sclerotic coat carefully removed. I thrust the point of the blade of a pair of sharp scissors through the choroid coat into the vitreous humour, to the depth of about an eighth of an inch, and divide all, so as to insulate a square portion of each membrane, leaving the edges free, and consequently no connexion except by surface ; yet the choroid does not recede from the membrane I describe, the membrane from the retina, nor the retina from the vitreous humour. I take the end of the portion of choroid in the forceps, turn it half down, and pass a pin through the edge, the weight of which is insufficient to pull it from its connexion. I separate the membrane in like manner ; but the retina I can scarcely detach from the vitreous humour, so strong is the connexion. The same fact may be ascertained by making a transverse vertical section of the eye, removing the vitreous humour from the posterior segment, and taking the retina in the forceps, pulling it gently from the choroid, when it will appear beyond a doubt that there is a connexion between them.

Let us contrast this account of the matter with the common one. The retina, a membrane of such delicacy, is de-

* See Haller, *Elem. Phys.* tom. v. lib. xvi. sect. ii. Zinn, cap. ii. sect. i. § ii. Boyer, *Anat.* tom. iv. p. 113. Sabatier, tom. ii. p. 70. Bichat, *Anat. Descr.* tom. ii. p. 447. Cuvier, *Leçons d'Anat. Comp.* tom. ii. p. 418. Charles Bell, *Anat.* vol. iii. p. 51. Ribes, *Mem. de la Soc. Med. d'Emulation*, tom. viii. p. 633.

scribed as being extended between the vitreous humour and choroid, from the optic nerve to the ciliary processes, being merely laid between them, without any connexion, and the medullary fibres in contact with a coloured mucus retained in its situation by its consistence alone. This account is totally at variance with the general laws of the animal economy: in no instance have we parts, so dissimilar in nature, in actual contact: wherever contact without connexion exists; each surface is covered by a membrane, from which a fluid is secreted; and wherever parts are united, it is by the medium of cellular membrane, of which serous membrane may be considered as a modification. If the retina be merely in contact with the vitreous humour and choroid, we argue from analogy, that a cavity lined by serous membrane exists both on its internal and external surface; but this is not the fact. In the eye a distinction of parts was necessary, but to accomplish this a serous membrane was not required; it is only demanded where great precision in the motion of parts was indispensable, as in the head, thorax, and abdomen; a single membrane, with the interposition of cellular substance, answers the purpose here. By this explanation we surmount another difficulty: the unphilosophical idea of the colouring matter being laid on the choroid, and retained in its situation by its viscosity, is discarded; as it follows, if this account be correct, that it is secreted into the interstices of fine cellular membrane here, as it is upon the ciliary processes, back of the iris, and pecten, under the conjunctiva, round the cornea, and in the edge of the membrana nictitans and sheath of the optic nerve in many animals. Dissections are recorded where fluids have been found collected between the choroid and retina, by which the structure of the latter membrane was destroyed. The explanation here given is as sufficient to account for the existence of this fluid, as that which attributes it to the increased secretion of a serous membrane.

I take this opportunity of describing the method I adopt for examining and displaying these and other delicate parts; a method which, though simple, will, I expect, prove an important improvement in the means of scrutinizing the structure of animal and vegetable bodies. I procure a hollow sphere of glass from two to three inches in diameter, about one-fourth of which is cut off at the part where it is open, and the edges ground down, so as to fit accurately upon a piece of plate glass, the surface of which is also ground: the object to be examined is attached to a piece of wax fastened upon the plate of glass and immersed in a basin of water, with the cut sphere, which is inverted over it, of course full of water, and

the whole withdrawn from the basin. The part may thus be examined under the most favourable circumstances; it floats in water, the only method by which delicate parts can be unfolded and displayed: the globular form of the vessel answers the purpose of a lens of considerable power and perfection, at the same time that it admits light in any quantity or direction to illuminate the object; and, what is of the utmost importance, a preparation of the greatest delicacy may thus be handed round a class in safety.

PART IV.

FOREIGN MEDICAL SCIENCE AND LITERATURE.

RETROSPECT OF FOREIGN MEDICAL SCIENCE AND
LITERATURE, FOR THE YEAR 1819.

ANALYSIS OF FOREIGN PERIODICAL LITERATURE.

COMPLEMENTARY JOURNAL OF THE DICTIONARY OF
MEDICAL SCIENCES.

JULY 1819.—*Observations on Elephantiasis, and on some Leprous Families which still exist in the Southern Countries of Europe.* By M. Foderé.—(Supplement to Article *Elephantiasis*, of the Dictionary).—To this article we have before briefly adverted*: and we find, on perusal of the original, nothing that will repay the labour of a more detailed notice.

Observations on the Influence of the Circulation on the Cerebral Functions, and on the Connection of Hypertrophy† of the Heart with certain Lesions of the Brain. By Dr. Bricheteau.—This is certainly one of the most important and interesting papers that has ever yet fallen under our notice. By deviating from our wonted plan of bare analysis, and giving a condensed translation of it, nearly in the language of the enlightened author, we feel confident that we shall impart to our readers somewhat of the gratification and instruction of which its perusal has been productive to ourselves.

“*Physiology.*—The heart is placed in the centre of the body in order to transmit by the vessels, of which it seems to be the origin, the blood destined to carry life and excitation to every part. The influence exercised by this organ may

* REPOSITORY. Present Volume, page 162.

† From *νσις*, *super*, and *τροφή*, *nutritio*; excess of nutrition.

not inaptly be compared to that of a fountain diffusing fertility by numerous channels far and near. And as those places which are nearest the centre of irrigation, are by their position rendered more productive, so the organs in the vicinity of the heart receive from its impulse an increased degree of activity, proportioned to the importance of their respective functions.

"The encephalic organ, which, as the central seat of the five senses, and focus of the general sensibility, exerts great influence on the whole economy, requires a strong and permanent excitation. Thence it receives a great quantity of oxygenated blood, in a short and almost direct course, by the numerous arteries distributed in its substance. Is it not obvious from this disposition, that Nature has placed nearest to the circulating centre those organs which are the most essential to the maintenance of life; as the liver, lungs, stomach, and brain?

"With respect to the brain, it may be remarked that the nearer this organ is situated to the heart, the more is its energy manifested by acts of superior intelligence. A large head and short neck have long been said to denote an active and intelligent mind. It is, in fact, certain that many men who, from their organization, are fitted for profound thought and the most elevated conceptions of genius, exhibit this peculiarity of structure. And, although exceptions to the rule sometimes occur, I think that the influence of this peculiarity upon the intellectual condition cannot in general be denied*.

"During the operations of the intellect, the blood in those whose heart is endowed with strong parietes rushes towards the encephalon with augmented force. The face becomes flushed and swollen; the eyes red, prominent, and injected. This is with writers the moment of inspiration. Richerand knew a literary man, who, in the ardour of composition, displayed a red and animated countenance, sparkling of the eyes, violent pulsation of the carotid arteries, tension of the jugular veins, and, in fact, all the symptoms of a sort of cerebral fever. During this exaltation of the brain only, his ideas flowed with facility, and the more delightful scenes presented themselves to his imagination†. The same author speaks also of a young man of sanguine temperament, and subject to inflammatory fever, which always terminated by copious nasal hæmorrhage. During the paroxysm, the powers of his mind and force of his imagination were signally elevated. The same curious phenomenon I have twice or thrice observed on myself, in indisposition accompanied by cerebral congestion. Dr. Dolevera,

* Richerand, *Nouveaux Elémens de Physiologie*, tom. ii. p. 111.

† Ibid. tom. ii. p. 121.

of Paris, knew a scholar who, tormented with a bad memory, had in vain endeavoured to learn his lessons in the horizontal posture, and could only succeed by placing his head downwards, and supporting his body against a wall. The celebrated Grétry, when heated by the exercise of his imagination, presented symptoms of slight congestion of the brain for three weeks or a month, during which his admired productions were principally composed.

“It has been remarked by many physiologists that the horizontal posture, in which the blood reaches the brain with the least effort, is most favourable to intellectual labour. And there are many persons accustomed to rise from bed, in order to fix the fleeting ideas which in that situation crowd upon the imagination. Some literary men, for the same reason, constantly observe during their labours the horizontal position.

“From a ratio between the heart and brain, the inverse of that just examined, opposite phenomena commonly result, and equally demonstrate the influence which the impulse communicated to the blood exercises upon the encephalic functions. In fact, individuals of tall stature and long neck do not commonly appear to be gifted with superior reason or splendid talent. They are generally slow, phlegmatic, and exceedingly limited in intellectual activity and power.

“On descending from man to the inferior animals, we see that, among the mammifera, the deer and antelope, and among birds, the goose and heron, in which a small head is supported by a long neck, possess a limited degree of instinct. This peculiarity is regarded by the profound and philosophic La Fontaine in his fables. Dissection shows that the volume of the heart is in these animals small, and its action feeble. On the contrary, the elephant, whose voluminous head is placed very near the circulating centre, is signalized by his admirable instinct. The cat, the monkey, the bear, and fox, present nearly similar relations between the heart and brain. The same observation applies to the dog and beaver. In these, the heart possesses a very considerable development, and impels the blood forcibly towards the brain. Legallois has noticed this particularity in his ingenious considerations on the heart; and Bichat, in discussing this point of physiology, expressly confirms the doctrine, with regard both to man and the inferior animals.

“Every thing concurs to prove that this incontestably demonstrated connexion between the actions of the heart and brain is continually kept up by the supply of arterial blood, the natural excitant of all our organs. This is farther evidenced by the great quantity of blood sent to the en-

cephalon, its powerful impulse, and the motion which it communicates to the whole cerebral mass.

"The aortic ventricle and auricle, observes Bichat, manifestly influence the brain by the fluid which they transmit into the carotid and vertebral arteries. This fluid is capable of exciting the organ to which it is driven, either by its motion, or by the nature of the principles which constitute and distinguish it from venous blood.

"That the motion communicated by the blood to the brain keeps up its action and life, is a fact easy of demonstration. If part of this organ, in an animal, be exposed so as to display its movements, and the carotids be afterwards tied, the cerebral motion sometimes becomes feeble, and the animal comatose. At other times, the vertebrals supply the place of the tied arteries, and no derangement occurs in the principal functions. Yet there exists an invariable relation between the vital energy and alternate subsidence and elevation of the brain. If a portion of the cranium of an animal be removed, and the supply of blood to the head be completely intercepted, the encephalic movement directly ceases, and life becomes extinct. The same results are obtained from another conclusive experiment. When water is thrown into the carotid of a dog, the contact of the fluid is not injurious, when the injection has been cautiously managed; but if it be forcibly impelled, the cerebral action is immediately disturbed, and often with difficulty re-established. At other times, agitation of the facial muscles is observed, but disappears as the impulse is moderated. If it be very violent, death may ensue*. Hence we may conclude, that the impulse communicated by the heart to the brain is essential to the maintenance of the cerebral action, which augments, diminishes, or becomes extinct, as this impulse is itself strong, feeble, or utterly annihilated.

"The pulsations, isochronous to the stroke of the heart, which are observed through the fontanelles, or in cases of wound, with loss of substance, of the cranium, leave no doubt as to the impulse which the former organ, in its systole, communicates to the brain. This theory, generally admitted in physiology, has been clearly demonstrated by the decisive experiments of Professor Richerand†.

"Without replying to the question respecting the exact impulse which the blood driven from the heart communi-

* Bichat, *Recherches Physiologiques*, &c. page 171.

† *Elémens de Physiologie*, tome i. page 137. — *Mémoires de la Société Médicale d'Emulation*, Ann. vii. page 197.

cates to the brain—a question merely accessory, and perhaps incapable of solution—we may remark the error into which some physiologists have fallen; who, advancing that the bend formed by the carotid canal retards the circulation of blood in the internal carotid artery, inadequately calculate the impulse of this fluid on the encephalon. Bichat has exposed the inaccuracy of this opinion; since, for the production of such effect, it is necessary to suppose the arterial system empty at the instant when the left ventricle impels its blood to the brain. This, however, does not occur; consequently, the curve of the internal carotid, like that of other vessels, can exert no influence on the progression of its contained blood*; and the degree of impulse communicated by the circulation to the encephalon, is solely in proportion to the quantity of blood which it receives—a quantity variously estimated, but supposed by Keil and Haller to amount to half the blood contained in the animal economy.

“In concluding this subject, it may be established as a principle that the nervous system has no share in the business; consequently that we may adopt the opinion of Bichat, who first incontestably established the exclusive agency of the vessels in the influence of the heart upon the life of the brain.

“*Pathology.*—Phenomena the most natural produce disorder, when carried beyond their ordinary limit. Thus, the rush of blood to the brain, which in the healthy state is the natural excitant of the organ, becomes, when too rapid and impetuous, the cause of different diseases; so that the integrity of the cerebral functions is connected, not only with the movement communicated by the blood, but with the sum of this movement, which ought always to observe a just medium. The experiments already cited clearly prove, that mischief equally ensues from its undue weakness or impetuosity.

“To be convinced that excess of action of the heart induces great derangements in the cerebral functions, and becomes the frequent cause of severe or fatal diseases, it will suffice to observe with attention individuals suffering from active aneurism, or, more correctly speaking, hypertrophy of the organ in an advanced state†. Such patients complain often

* To be convinced of this truth, as far as it can be done by experiment, it will suffice to bend a tube in various directions, and adapt a piston to it. If the tube be filled with water, the impulse given by the piston will be the same as if the apparatus were straight.

† The hypertrophy, or thickening of the parietes of the heart, in question, is scarcely ever observed, except in the left ventricle; while

of violent headach, drowsiness, vertigo. Sometimes they become utterly insensible, in consequence of cerebral congestion, or a momentary seizure, constituting what is vulgarly denominated a stroke. To the same cause may be referred the sensation of warm vapours ascending to the head, experienced by aneurismatics, the tinnitus aurium, convulsions of the facial muscles, illusions of vision, and even blindness, which sometimes precede apoplexy; and, lastly, the fatal hæmorrhage itself. On examining the subjects in whom these symptoms appear, it will commonly be remarked, that the pulsations of the heart are strong, hurried, and frequently irregular; that these palpitations, aggravated by the slightest exercise, have long existed; that the carotid and temporal arteries pulsate with unusual force against the finger; that the face assumes at times a red or rather violet tinge; and that respiration is deep and accelerated. The latter phenomena conclusively indicate that the left ventricle of the heart, having acquired an increase of volume and action, impels the blood with undue energy to the brain, and may thus rupture the soft and delicate structure of the cerebral organ, and induce extravasation or other lesion. It now remains for us to inquire whether this correspondence between hypertrophy of the heart and morbid alterations of the brain has yet been signalized by Physicians; to develop the facts consigned in their respective works; and briefly retrace those which have led to the publication of the present memoir.

“ The co-existence of hypertrophy of the heart with diseases of the brain is one of those very common pathological phenomena, which, nevertheless, has been but recently remarked by the morbid anatomist. Several creditable authors, and, among others, Corvisart, assert that cases relative to this point may be found in the writings of Morgagni; but the observations of this celebrated pathologist respecting it are very vague; nor can I, on the most attentive perusal, discover one conclusive fact of this nature.

“ Upon examining the body of Malpighi, who had died of apoplexy, Baglivi appears to have first remarked a considerable thickening of the parietes of the left ventricle of the heart; but he merely noticed this organic lesion, without drawing from it any conclusion with respect to apoplexy*. Gibellinet† also details the history of an apoplexy

aneurism, properly so called, has almost invariably its seat in the cavities of the right side.

* *Historia Morbi et Sectionis Cadaveris Marcelli Malpighii, &c.* Baglivi Opera Omnia, tom. ii. page 380.

† *De quibusdam Cordis Affectionibus.*

dependent on the same cause. The following are the principal particulars of it:—A man who from his earlier years had been subject to palpitations, and who, in consequence of severe affliction, had exhibited symptoms of aneurism of the heart, was, after a full meal, stricken with apoplexy. He immediately became hemiplegic; and his heart beat with violence. The symptoms were relieved by blood-letting, and the patient recovered; but the signs of aneurism still continued. Eight months afterwards, a fresh attack of apoplexy was cured by the same means; but in a while the man again became hemiplegic, from an aggravation of the symptoms of diseased heart. These symptoms, gradually increasing, terminated at last in a fatal attack of apoplexy. On dissection, a cyst, containing half an ounce of decomposed lymph, was discovered in the superior part of the left hemisphere of the brain. The corresponding ventricle was considerably distended, and enclosed a polypiform concretion, (doubtless blood)*. The right lung was hepatized. The heart double its natural volume, universally adherent to the pericardium.

“Lieutaud, after quoting the case of Malpighi, records, in his work, the following fact:—A man, aged thirty-two, commonly drowsy from excessive drinking, had been, for fifteen years, subject to violent palpitations, consequent on a blow upon the breast, and equally perceptible to the eye and ear. He died in a sudden and unexpected manner. On dissection, the cavity of the right ventricle of the heart was found considerably enlarged, and the cerebral cavities filled with black and grumous blood†.

“It should be remarked, that the two latter authors, and perhaps others, in signaling some rare cases of disease of the heart, complicated with apoplexy, have established no relation between the two maladies. Corvisart himself, celebrated as he is for the observation and description of different affections of the heart, asserts, that no such fact has presented itself in his practice. From what I have myself observed during two years, it appears impossible, that among the numerous patients submitted to the observation of this celebrated Physician, several should not have presented the complication in question. There is every reason to believe that the non-examination of the brain was the cause of its not

* The brain was probably examined with little attention, or traces of several other extravasations, consequent on the repeated attacks of apoplexy suffered by the patient, would have been discovered.

† *Historia Anat. Med. observ.* 267. What was the state of the left ventricle?

having been remarked. On observing, in several of his cases, the supervention of paralysis, evidently the effect of some cerebral effusion, this suspicion is converted into a certainty. The thirteenth case is particularly remarkable. In the sixteenth, an aneurismatic subject is seen to have died suddenly during the night; but the brain was not examined. The apoplexy, in most of the cases observed by myself, occurred at night; and on the morrow paralysis was alone remarked.

“ Richerand, who has treated on the influence of the heart upon the brain in health, appears to have been one of the first by whom this influence, in hypertrophy of the left ventricle of the heart, was appreciated*; and one of its most remarkable effects pointed out. ‘The dissection of the bodies of apoplectics,’ he observes, ‘has convinced me that an excess of force of the left ventricle constitutes a disposition more nearly bordering on apoplexy than a short neck, which, with a large head, establishes, in the opinion of most Physicians, the apoplectic conformation†.’ The result of my own observation, particularly directed to this subject, has confirmed the accuracy of the preceding remark.

“ In January 1804, Legallois read to the Society of the Medical School of Paris a very curious case of apoplexy dependent on increased force of the aortic ventricle. The subject of it, a female, could execute no rapid motion without instantly becoming breathless; sleep was short, and the patient could recline only on the left side. Tight clothes were productive of singular inconvenience; she ate well; and, with a countenance habitually pale, was subject to frequent nasal hæmorrhage. Sudden apoplexy terminated her life about the twenty-fifth year.—The substance of the brain was found ruptured and gorged with blood, of which the ventricles contained also some ounces; the left ventricle of the heart exhibited such a volume, and its parietes were so much thickened, that Legallois justly regarded this hypersarcosis as the probable cause of the rapidly fatal event.

“ Richerand more recently communicated to the School of Medicine a most important fact of this nature; the subject of which was one of the most distinguished and philosophic Physicians of the age. Cabanis, in April 1807, sustained an attack of apoplexy, the first effects of which yielded to medical treatment: two other attacks were experienced during autumn: in the spring of the next year, fresh symptoms por-

* Mémoires de la Société Médicale d'Emulation.—Elémens de Physiologie.

† Nosographie Chirurgicale, tom. iii. page. 15, section 1.

tended a relapse : and on the 6th of May, a violent attack of apoplexy terminated, in a few hours, his valuable life. On dissection, the left ventricle of the heart was found to possess, at least, triple its ordinary volume and strength. The parietes of this cavity were more than an inch in thickness, so that, at first sight, there existed an evident disproportion between the heart and the rest of the machine. The ventricles of the brain contained about eight ounces of coagulated blood : the irruption had been so violent that the *septum lucidum* was lacerated, and the projecting eminence in the interior of the cavity, as well as the optic thalami and corpora striata, disorganized in their substance.

“ It would seem, from the small number of facts just cited, that this connexion of hypersarcosis of the heart with affections of the brain must be a very rare occurrence ; but facts observed during two years at l’Hotel-Dieu, by myself, in common with many other Physicians and Students, prove the contrary. In a thesis upon apoplexy, presented to the Faculty of Medicine of Paris, in June 1818, by M. Guellemain, which does not appear to have had for its object the development of this connexion between hypersarcosis of the heart and apoplexy, we find that, out of six cases, four presented it in an evident manner. Hence may be seen how unfounded is the assertion of Rochoux*, who says that such a disposition rarely occurs in apoplexy.

“ *New Facts relative to the Connexion of Hypertrophy of the left Ventricle of the Heart, with Affections of the Brain.*—There exist, in my opinion, three kinds of cerebral alterations, the development of which may be determined by an unduly augmented action of the heart. These are sanguineous congestions, extravasation of blood, and softening and disorganization of the brain.

I. “ *Sanguineous Congestions of the Brain.*

“ *First Case.*—Louis Germain, aged fifty-seven, had been rickety in his infancy. His thorax was malformed, his neck short, head large, and countenance ruddy. For several years he had experienced palpitations, on account of which he was admitted, in July 1814, into the infirmary of Bicêtre. His pulse was then frequent, hard, irregular ; and the pulsations of the heart extensive, and sensible to the eye and hand. General blood-letting, and the application of leeches to the region of the heart, were prescribed ; and digitalis internally administered. By these means, the violence of the palpitations was diminished, and the patient tranquillized ; when, in

* Recherches sur l’Apoplexie, page 89.

consequence of a hearty evening meal, he was suddenly attacked with great dyspnœa and insensibility: his mouth was filled with froth; his face assumed a violet hue; and he soon afterwards expired. On dissection, the sinuses of the dura mater were found distended with black and fluid blood. The substance of the brain was very firm, and its vessels much loaded: but neither in the cavities of the encephalon, nor in its substance, was any blood extravasated. The left ventricle of the heart was considerably enlarged, and its parietes possessed double the usual thickness; yet its cavity had suffered no diminution.

“*Second Case.*—Marteau, door-keeper at l’Hotel-Dieu, aged fifty, and of irascible temper, had long suffered from domestic troubles. His face, and particularly his lips, were habitually of a violet-red colour. On the 10th of April, 1819, he was found senseless upon the floor of his chamber; the face violet-coloured; eyes immoveable, and pupils dilated. Respiration was stertorous; the pulse small and slow; surface cold; and limbs completely relaxed. The man was conveyed into a ward; but, notwithstanding every attention, expired in six hours. On dissection, the vessels of the brain were found gorged with blood, and its substance minutely injected. No trace of sanguineous effusion was discovered after the most accurate inspection; the lungs were somewhat loaded with blood; the heart, considerably enlarged, exhibited decided thickening of the parietes of the left ventricle; the auriculo-ventricular septum was likewise greatly thickened.

“*Third Case.*—A man, aged forty-five, was seized on the 8th of February, 1818, with all the symptoms of apoplexy. At night, he was conveyed to l’Hotel-Dieu: nothing remained but an embarrassment of the tongue and slight hemiplegia. The pulse was hard and frequent, and the heart beat with violence. On the morrow the speech was more confused; the face pale and swollen; the mouth frothy; and respiration sonorous. Bleeding in the foot, sinapisms, and antimonials were prescribed. 10th. All the symptoms were aggravated: hemiplegia complete; respiration stertorous; stroke of the heart violent and irregular; pulse small; death. On dissection, the substance of the brain was firm and sound; its vessels, much gorged, gave the appearance of minute drops of blood on cutting the organ in slices. The tuber cerebri was somewhat softened; the heart was large, and the parietes of the left ventricle much thicker than natural; while those of the right side were in some points extenuated. The various cavities and their orifices exhibited nothing remarkable*.

* Dissertation sur quelques Maladies du Cœur, par Guilhomet. Paris, 1818.

" II. *Extravasation of Blood in the Brain.*

" *First Case.*—A woman, aged about fifty, after an unavailing application to several of the Paris hospitals, was, in May 1816, admitted into l'Hotel-Dieu. Her pale countenance wore an expression of suffering: for some months she had scarcely slept. Obligated constantly to observe the sitting posture, she experienced dreadful anguish, and a pain in the epigastrium which menaced suffocation. The stroke of the heart was not perceptible; the pulse was regular, weak, and slow; respiration habitually deep and hurried. The poor creature enjoyed not one moment's repose: she screamed continually with intolerable pain. The lower limbs were œdematous. Notwithstanding the absence of several of the characteristic symptoms of disease of the heart, its existence was suspected. With a view of diverting the pain, two blisters were applied to the thighs, and antispasmodics with tincture of digitalis administered. Some days after her admission, hemiplegia of the left side was, on the morning visit, observed; and to this event the most perfect tranquillity and exemption from suffering succeeded. An attack of apoplexy had doubtless been sustained during the night; the woman became indifferent to her situation, and gradually declined in strength. The left arm swelled; and, what is very remarkable, the pulsations of the heart, strong, hurried, and disorderly, were then distinctly perceptible. The face grew œdematous; respiration more difficult; and death took place in about ten days after the accession of the hemiplegia. On dissection, the enlarged heart was found occupying nearly the whole left cavity of the thorax. The parietes of the aortic ventricle and auriculo-ventricular septum, had acquired great thickness, and the columnæ carneæ an enormous dimension. This increase of volume had taken place partly at the expense of the right ventricle, the cavity of which was greatly diminished. The brain displayed, at the superior part of the right hemisphere, a small cyst, containing a greyish pulp mixed with blood; and the circumjacent cerebral substance was softened and disorganized.

" *Second Case.*—A pavior, aged fifty, fell down senseless on the 11th of April, 1816, and was conveyed, two hours after the accident, to the l'Hotel-Dieu. He was in a comatose state; the face pale; pupil dilated; pulse full and slow; with complete hemiplegia of the left side. Blood-letting and stimulant pediluvia prescribed; next day, an emetic: at night, bleeding in the foot. The man now partly recovered the use of his faculties; but fever supervened, with dryness of the tongue and skin; and he died on the 17th. Dissection

exposed, in the right hemisphere of the brain, a considerable cyst filled with blood : it occupied the middle lobe, but had no connexion with the lateral ventricle. The corpus striatum of the corresponding side presented also a yellowish cyst, capable of containing a filbert, and invested with a membrane. The cerebral substance, constituting the parietes of this cyst, was yellow and softened ; and the traces of an old extravasation could not be mistaken. The parietes of the left ventricle of the heart had acquired considerable thickness at the expense of its cavity. Neither obstruction nor vestige of ossification existed in the cardiac orifices.

“ Third Case.— A woman, aged thirty-nine, had for some years been suffering from a strongly-marked disease of the heart, for which, in February, 1817, she was admitted into l’Hotel Dieu. Antispasmodics, digitalis, and irritant pediluvia, were prescribed. A month after her admission, she fell senseless, during night, on the floor, and was raised up by the nurse. On the morning visit, an attack of apoplexy was evident. The usual means were resorted to ; but hemiplegia remained. From this period the symptoms of the cardiac affection became less violent.

“ Fourth Case.— A woman, aged fifty, was, on the 26th of February, 1818, admitted into the hospital of la Salpêtrière on account of aneurism of the heart, which had subsisted, with a very slow progress, for several years. The dyspnoea and palpitations were very sensibly relieved by blood-letting, antispasmodics, and pediluvia ; when, on the 15th of March, in an effort to go to the night-chair, she fell senseless and comatose, with hemiplegia of the right side. Respiration was stertorous ; the face red ; the pupils immoveable ; the pulse hard and frequent. Bleeding in the foot and purgative injection directed. Next day sinapisms, and leeches to the neck. The symptoms were aggravated, and the woman died at night, twenty-four hours after the attack. On dissection, there was discovered in the cranium an extravasation of blood, which had commenced about the left corpus striatum, and afterwards found its way into the four ventricles. The heart was very voluminous, and the left ventricle, with its cavity greatly contracted, was nearly an inch and a half in thickness. The cardiac orifices were unobstructed ; but some points of ossification existed in the arch of the aorta*.

“ Fifth Case.— A woman of small stature, aged about fifty, was conveyed senseless to l’Hotel-Dieu, in April 1817. The pulse was slow and hard ; there was insensibility, with hemiplegia of the right side. The patient had, it seemed,

* Dissertation sur l’Apoplexie, par Guillemin. 1818.

about six weeks previously recovered from a similar attack. She died next day. On dissection, two extravasations of blood were found in the left hemisphere of the brain; one of them, which appeared to be of a more remote date, was smaller than the other. The organization of a membrane was seemingly commencing around the solid coagulum of the one, while in the other the blood was yet fluid. The heart, considering the stature of the subject, displayed a considerable volume, and seemed exclusively destined to form the left ventricle, the parietes of which were more than an inch thick, while its cavity would scarcely admit the extremity of the thumb. The parietes of the right ventricle were much extenuated.

" Sixth Case. — A man, aged thirty-eight, who for four years had been affected with disease of the heart, experienced a first apoplectic attack, for which he was conveyed to la Charité. Here he was treated as an hemiplegic, with nux vomica. Five months after dismissal from the hospital he sustained a second attack, from which he recovered by the usual means, and again quitted the hospital. Seven months subsequently he was admitted into l'Hotel-Dieu, for aneurism of the heart very decidedly characterized. The pulse, irregular and remarkably slow, beat but from thirty-six to forty in a minute. I afterwards lost sight of this man. He most probably died from the disease, which had twice brought him into such imminent danger.

" To the two cases wherein hypertrophy of the heart was the probable cause of the successive attacks of apoplexy, I may add that of a lady at Paris, suffering from disease of the heart, who has already sustained six apoplectic seizures."

" III. Softening and Disorganization of the Brain.

" First Case. — A woman, aged thirty-six, who, for some years, had been subject to a sense of oppression and frequent colds, enjoyed otherwise tolerable health. On the 3d of July, 1810, she was found senseless upon the floor, and paralyzed on the left side; and conveyed to an hospital. The respiration was nearly natural, although the patient made a motion with her lips like that observed in smoking. The countenance was livid; the pulse hard, irregular, tremulous; and the tumultuous action of the heart clearly perceptible. — 4th. Hemiplegia continued. A blister between the shoulders; valerian internally. — 5th and 6th. No change, except gradual sinking. Death on the evening of the 8th. *Dissection. —* Cranium. — Much blood in the vessels of the dura mater; considerable infiltration of serum between the pia mater and arachnoid, on the superior surface of the

brain. The whole encephalic mass greatly softened. The right corpus striatum contained in its centre two coagula of blood, of the volume of a nut, separately lodged in two irregularly rounded cavities, the parietes of which were softened, and had suppurated to the depth of several lines. The whole corpus striatum was much softer than that of the opposite side, and its vessels greatly loaded.—Thorax. The heart was uncommonly enlarged; and the dilated right auricle contained a polypiform concretion, with much black coagulated blood. The corresponding ventricle was also considerably dilated, and its parietes, extenuated to the thickness of about a line, exhibited a fatty degeneration. The left ventricle was enlarged, and its parietes thickened*.

“*Second Case.*—A woman, aged sixty-five, was admitted into l’Hotel-Dieu in December 1816. She had been found senseless on the floor, and presented coma, insensibility, distortion of the mouth, stertorous respiration, paralysis of the right side, and, in fact, all the symptoms of apoplexy. Eighteen years previously she had, it appeared, sustained a similar attack, succeeded by hemiplegia. She was bled in the arm without relief, and died in the night. On dissection, considerable extravasation of blood was found in the middle lobe of the left hemisphere. A little more externally a portion of the cerebral substance was softened, disorganized, and yellowish: the circumjacent structure was loaded with blood. The heart was not much enlarged; but the cavity of the left ventricle had nearly disappeared in consequence of thickening of its parietes, the texture of which was firm and compact. The right ventricle exhibited a contrary disposition.

“*Third Case.*—A woman, aged fifty-nine, was received into l’Hotel-Dieu, July 5, 1816, with all the symptoms of active aneurism of the heart. Her face was livid, lips violet; respiration deep and hurried; pulse hard and irregular; sensation of warm vapours; anxiety; sleeplessness; and action of the heart strong and disorderly. Great tranquillity and relief were experienced from digitalis largely administered; but, some days afterwards, the patient was stricken with apoplexy during the night; and next morning I found her paralyzed on the right side, with distortion of the mouth and embarrassment of the tongue. The symptoms of diseased heart again underwent at this period considerable diminution. The hemiplegia was combated by nux vomica, with some prospect of success; but the recovery of motion was imperfect and transient. The symptoms of disease of the heart recurred with aggravated violence, and the woman, gradually

* Rochoux, Recherches sur l’Apoplexie, p. 9.

declining, died about the close of November. On dissection, was found, in the left hemisphere, an extravasation which occupied the optic thalamus, and had penetrated from thence into the lateral ventricle. The cavity containing the effused blood was covered internally by a layer of yellowish purulent matter, which had escaped with the blood into the ventricle by the orifice just mentioned. The cerebral substance around the cyst was, to a certain extent, completely altered. The heart appeared very large; the parietes of the left ventricle were much thickened, and the columnæ corneæ considerably developed; while those of the opposite ventricle were scarcely perceptible.

"*Fourth Case.*—The subject of this case, observed by Corvisart, was a delicate female of twenty-four, in whom palpitation of the heart, syncope, and habitual cough, originating from suppressed menstruation, and aggravated by grief and hard work, terminated in hemiplegia, with œdema. She was tormented with suffocation, and constantly lay on the left or paralyzed side. The pulse, although feeble in the paralyzed, was strong in the opposite limbs. She died after a dreadful struggle.—*Dissection.* The substance of the right cerebral hemisphere in a state of decomposition; its colour ash-grey; and consistence that of thick jelly: left lung greatly compressed; the heart very large, occupying nearly the whole left region of the thorax; its right cavities and left auricle merely somewhat distended; the left ventricular orifice enlarged, and the mitral valve beset with vegetations resembling the syphilitic; and a tubercle, of the size of a filbert, attached to the centre of its free border; the cavity of the left ventricle considerably enlarged, and its parietes unusually thickened; the pericardium containing a little serum*.

"The hemiplegia in this case was, doubtless, the result of an apoplectic seizure, which had occurred previously to the patient's admission into the hospital; and to extravasation of blood must be referred the origin of the organic lesion observed in the brain.

"*Conclusion.*—If yielding to the natural propensity of the physiological Physician, who inquires the probable cause of the phenomena which he observes, we wish to discover *that* if encephalic lesions co-existent with hypertrophy of the heart, it will probably be found to exist wholly in the increased action of the thickened aortic ventricle, which impels the blood to the brain with such violence that its vessels and substance give way: hence the extravasation and consequent lesions which have been described. Without pretending to calculate or to limit the power of the heart,

* Corvisart, *Essai sur les Maladies du Cœur*, p. 74.

I describe here but an action in some sort mechanical, and brought into play by the laws of vitality. This power is the column of fluid, which, meeting no resistance equal to the impulse communicated by the heart, tends to escape from its containing tubes.

"In employing a mechanical comparison for the explanation of this physiological phenomenon, I pretend not to assimilate the laws of life and mechanism. All the experiments above cited confirm the opinion here advanced. As a yet more decisive proof of the analogy I may add, that if a warm injection be forcibly thrown into the carotid of a dead body, artificial extravasations are produced in those parts of the brain which are most liberally supplied with blood-vessels.

"It should be remarked, that in numerous dissections made by myself, I have invariably found lesions of the brain to coincide with hypertrophy of the left ventricle of the heart; by which the impulse is communicated to the blood thrown almost directly from the aorta into the carotids.

"Some Physicians have thought that this co-existence of diseases of the heart with those of the brain may be referred to an obstructed circulation, caused by some ossification of the cardiac orifices, or arterial trunks. Some admit, at the same time, the existence of an aneurismal state of the smaller vessels, which singularly predisposes them to rupture on the slightest rush of blood. In no subject examined by myself have I discovered ossifications. Most of the patients had, moreover, not attained the age at which this organic transformation is observed. And, even admitting the existence of these ossifications, I can with difficulty conceive how they oppose an obstacle to the return of the blood capable of producing extravasation. There is, doubtless, great difference between the effect of such a cause and that which must result from the violent contraction of a strong muscle like the heart, the substance and power of which have been increased twofold. As to the aneurismal condition of the arterial extremities, I conceive, that were its existence demonstrated, it might constitute a strong predisposition to extravasation, especially when the action of the heart is augmented, as invariably happens in hypersarcosis of the left ventricle.

"I shall not revert to the calculations which have been made to appreciate the force of the impulse of the heart upon the encephalon, or to the elevation and movement communicated to it by the column of fluid, since these particulars, stated in the commencement of the memoir, singularly favour the explanation which I have given of cerebral congestion and extravasation, consequent on hypersarcosis of the heart. I shall merely remark, that when, in consequence of any powerful emotion, the heart beats with

force, the pulsation of the blood upon the brain is distinctly felt, and produces the effect of a painful percussion upon a sensible organ. Now, supposing the contractile power of the heart doubled, there will occur, instead of a painful impulse, an effort much more violent; and consequently, perchance, dilatation and rupture of the minute vessels of the brain. This is precisely the apoplectic fit. I have repeatedly seen, in the corpus striatum and its vicinity, minute vessels evidently distended and ruptured, from which partial extravasations had ensued. At the moment of my writing, I have examined, with M. Leperrey, a brain which, besides an extravasation of blood in the left ventricle, exhibits an infinite number of these minute vessels, dilated and ruptured in the inferior parietes of the ventricle. They, doubtless, were the source of the overwhelming hæmorrhage by which the patient had been destroyed.

“From these considerations, I deem it alike rational and physiological to refer the cause of the cerebral effusion, in such cases, to the increased action of the left ventricle: and that it will be discovered neither in ossification nor in an aneurismal disposition of the extreme arteries, and yet less in a pretended state of the nervous system, susceptible of development at a particular age and under particular circumstances. The pathological phenomenon in question is, I have already said, of frequent occurrence, and I believe one of the most common causes of apoplexy. I am even inclined to think that the heart, when particularly large without being diseased, may give rise to similar accidents. To inquire, however, from what cause hypersarcosis of the heart originates; why it is developed at particular periods; and produces not cerebral affections in certain individuals, while others become the victims of them, would be a task difficult of execution, and, moreover, foreign to the object which I have had in view.”

Exposition of the Doctrine of Broussais. (Fourth and last article.) By M. Begin.—This is the conclusion of a series of articles explanatory of the new doctrine of Broussais, to which we in a preceding Number alluded*. Being itself an analytical paper, it obviously will not admit of analysis. We shall take an early opportunity of introducing this subject more fully to the notice of our readers:

Observations relative to the Action of some Substances on the secretion of Urine, with the view of elucidating the Etiology of Diabetes Mellitus. By M. Krimer. (Supplement to the art. *Diabete*, of the Dictionary.)—After describing, from the result of experiments instituted on animals, the action which various substances, introduced into the system, exert on the

urinary secretion, Dr. Krimer acknowledges his inability to discover any one capable of inducing diabetes mellitus. Yet, although the history of this disease be not advanced by his experiments, they have led to some observations, valuable inasmuch as they are connected with facts already known. Several species of seeds, particularly rye, buckwheat, oats, and rice, depress the action of the nervous system, and principally that of the par vagum, while they render the urine very turbid, diminish the quantity of substances peculiar to it, and replace them by albumen and the colouring matter of the blood. This last phenomenon is perhaps favourable to the opinion of Professor Nasse, who conjectures that the derangement of the urine in the subjects of diabetes mellitus originates from a vegetable substance of peculiar nature contained in the groin, since the absence of almost all morbid appearances in the bodies of diabetics authorizes a belief that the complaint is immediately dependent on functional disorder of the nerves, and especially their depressed action. Krimer moreover proves, from other experiments, that the urinary secretion is partly dependent on the nerves of the fifth pair; and that the diminished action of these nerves produces an increased quantity of albumen, mucus, and colouring matter of the blood. Hence it may be, that the production of sugar in diabetes is dependent on an analogous state of the nerves of the eighth pair. From his experiments, a remarkable difference seems to exist between the mode of action of common sugar and that of the sugar of diabetes. The former, injected into the stomach or veins of animals, is perceived neither in the blood nor urine. This induces a suspicion that the latter possesses properties yet unknown, and that it differs wholly from the sugar of the fig and manna, to which it has been compared. The appearance of sugar, common as well as diabetical, in the vapour exhaled in expiration, equally merits attention, since it augments the number of the phenomena which establish an analogy between the lungs and kidneys. Lastly—Dr. Krimer hazards a conjecture on the probable relation existing between the secretion of bile and diabetes mellitus. This appears to be the more important since there is really a correlation in many respects between the urinary and biliary secretions. When the bile appears in the urine of persons attacked with disease of the liver, or its appendages, the urea disappears from the urine*, precisely as it does in diabetes when the presence of sugar is manifested. In the second place, Berzelius has discovered that the bile, in a state of health, contains a saccharine principle. May it not then

* This observation has also been made by our countryman, Mr. Rose, and communicated in the "*Annals of Philosophy*," V. v. p. 423.

happen, continues Krimer, that, in diabetics, the peculiar disposition of the vital energy, by virtue of which the liver secretes this saccharine matter, is translated to the kidneys? This is a conjecture which divers observations seem to sanction, and which, doubtless, merits attentive consideration.

PART V.

MEDICAL AND PHYSICAL INTELLIGENCE.

[As we freely admitted Mr. Hutchinson's reply to Dr. Wilson Philip in a former Number, we think it but bare justice to the latter gentleman to extract from Dr. Johnson's Journal the following rejoinder, which we have met with in looking over that journal.]

"IN answer to Mr. Hutchinson's remarks, in the last Number of the Medical and Physical Journal, on the foregoing observations, I must say that he and I appear to attach a very different degree of importance to the misstatements of a reviewer. Much as he complains of my censure, it has produced little amendment; for, in the very beginning of his reply, he calls M. Legallois "the executor of those experiments which most clearly prove" that the action of the heart continues after the destruction of the spinal marrow. Now, all who are acquainted with the work of M. Legallois know, that his chief object was to prove, and that all his experiments relating to the subject tend to prove, that the action of the heart does *not* continue after the destruction of the spinal marrow. Many of my experiments were made for the express purpose of refuting this opinion of M. Legallois. He calls me "the repeater of the *greater part* of Legallois' experiments." In the whole of my treatise I relate the repetition of but *one* of this author's experiments, and that in a cursory way, and for the purpose of comparing it with one of my own.

"Mr. Hutchinson quotes from my treatise observations which apply to the *nerves in general*, as a proof that I consider the *ganglian system* a reservoir of nervous influence! According to this new explanation, every nerve is a reservoir of nervous influence. He forgets that his former remarks applied to the ganglian system exclusively.

"I do not wish to proceed farther; but let Mr. Hutchinson *allow himself* time to compare his reply with my treatise, and with the observations which his account of it has drawn from me, and he will have no cause to charge me with exposing *slight* inaccuracies. The hurry of Mr. Hutchinson's feelings prevents his seeing that I am not guilty of the harshness of which he accuses me. 'This is an error,' he observes, 'I confess it with regret; but the branding it with the epithet of a gross violation of the implied compact between a reviewer and the public,' &c. If he recur to my observation he will find, that it was applied not to one but many errors, which I had enumerated, as appears from the first words of the sentence, 'All this.'

"When I censured Mr. Hutchinson's reasoning, I ought perhaps to have given an instance of what I censured. On farther reflection, he will, I think, acknowledge, that what he says of the nervous influence, towards the conclusion of his remarks on my treatise, can only be correct on the supposition that we can, after the removal of the brain, excite to its usual function a secreting surface, as we can excite a muscle, by irritating it with the scalpel. That this is not the case, Mr. Hutchinson, I suppose, will admit."

A METEOROLOGICAL TABLE,

From 21st of MARCH to 20th of APRIL, 1820,

KEPT AT RICHMOND, YORKSHIRE.

D.	Barometer.		Therm.		Rain Gauge	Winds.	Weather.	
	Max.	Min.	Max	Min.				
21	29	44	29	42	54	35	01 NW.SW...	1 Sun.. 3 Sh. of rain. 4 M..
22	29	12	28	80	50	37	04 W..	1 Sun.. 3 Show. of rain.
23	28	62	28	54	47	36	11 WSW....	1 Sun.. & Show..
24	28	84	28	74	43	28	10 W.N.NE.	1 Show. of Sleet.. 3 Sun.
25	29	23	29	23	43	27	01 NW..	1 Sun.. & Show of Snow.
26	29	25	29	25	49	36	04 SW..SE.	1 Snow. 3 Sun
27	29	41	29	30	56	38	03 SW..	1 Sh. of rain. & Sun. 4 M...
28	29	49	29	46	56	40	02 SW.SW...	1 Show. 2 Sun..
29	29	50	29	47	60	44	SW...	1 Sun..
30	29	63	29	49	54	39	SW..	1 Sun....
31	29	52	29	37	56	37	SW...	1 Cloud.. 2 Sun..
1	29	55	29	53	49	38	34 SW....WSW..	1 Rain... 2 Sun.. & Show.
2	29	75	29	70	59	40	W.	1 Cloud.. 3 Sun. 4 Starl...
3	29	75	29	60	65	44	NW.NE.SE.	1 Sun...
4	29	53	29	45	64	38	SE.SbE..	1 Mist.. 2 Sun..
5	29	10	28	97	60	37	08 SE.SW..	1 Sun.. 4 Rain.
6	29		28	98	51	35	02 SW..	1 Show. 2 Sun..
7	29	08	28	99	48	31	W..	1 Cloud.. 2 Sun.. 4 Starl...
8	28	98	28	96	54	34	34 S..	1 Sun.. 2 Cl.. 4 Rain...
9	29	08	29	08	53	34	NW..	1 Cl.. 2 Sun.. 4 Starl....
10	29	12	29	12	56	39	16 SW..SE..	1 Sun.. 3 Cl.. 4 Rain..
11	29	40	29	33	49	36	SE.	1 Cloud... 4 Starl...
12	29	57	29	54	51	40	NW.N.	1 Cloud...
13	29	52	29	37	58	32	SW.	1 Sun...
14	29	38	29	34	57	32	05 Vble.	1 Mist... 2 Sun.. 3 Rain.
15	29	52	29	51	55	37	W.	1 S... 2 Sh. & S.. 4 Starl...
16	29	76	29	70	63	47	SW..	1 Sun..
17	29	84	29	78	68	45	W..	1 Sun...
18	29	78	29	78	70	40	WSW..	1 Sun..
19	29	68	29	68	64	48	SW...	1 Sun..
20	29	86	29	80	62	44	W.SW..	1 Sun.

The quantity of rain during the month of March was 1 inch 47-100ths.

Observations on Diseases at Richmond.

The disorders under treatment were, Abscessio, Aphra lactentium, Asthenia, Catarrhus, Cephalalgia, Colica, Convulsio, Cynanche tonsillaris, Diarrhoea, Dyspepsia, Epistaxis, Febris catarrhalis, Febris simplex, Gastrodynia, Hæmatemesis, Hæmaturia, Lumbago, Morbi infantiles, Obstipatio, Odontalgia, Ophthalmia, Otalgia, Pernio, Podagra, Rheumatismus acutus, Rubеоla, and Vaccinia.

THE METEOROLOGICAL JOURNAL,

From the 20th of MARCH to the 19th of APRIL, 1820,

By Messrs. HARRIS and Co.

Mathematical Instrument Makers, 50, High Holborn.

D.	Moon	Rain.	Therm.	Barom.	De Luc's Hygrom.		Winds.		Atmo. Variation.		
					Dry.	Damp.					
20			42 48 36	30 26 30 24		9 8	E	NNE	Clo.	Fine	Fine
21	D	,01	44 49 36	30 17 29 97		8 9	WNW	W	Fine	Fine	Rain
22		,02	42 49 39	29 80 29 70		9 8	N	W	Fine	Fine	Rain
23			45 49 42	29 54 29 18		9 7	WNW	W	Fine	Clo.	Fine
24			47 48 36	29 15 29 01		7 6	NW	E	Clo.	Sho.	Clo.
25			40 44 33	29 23 29 60		5 6	NE	NNE	Fine	Fine	Fine
26		,02	35 43 47	29 90 29 71		3 18	WNW	W	Fine	Rain	Rain
27		,01	51 53 47	29 82 29 85		19 17	SW	WSW	Clo.	Sleet	Sleet
28			50 54 50	29 97 30 05		17 16	WSW	SW	Fine	Fine	Fine
29	☉		54 58 48	30 11 30 05		15 15	SW	SSW	Fine	Fine	Fine
30			52 56 42	29 95 30 04		13 11	W	N	Fog	Fine	Fine
31			46 58 44	30 00 29 93		9 17	N	NW	Fog	Fine	Fine
1			48 57 49	30 03 30 02		18 16	WSW	WNW	Fine	Fine	Fine
2			53 59 49	30 08 30 14		14 12	W	WNW	Fine	Fine	Fine
3			55 60 44	30 18 30 15		10 10	NNW	ESE	Fine	Clo.	Fine
4			52 63 46	30 29 29 87		9 4	S	SE	Fine	Fine	Fine
5			55 63 47	29 80 29 64	3 1		E	SW	Fine	Clo.	Fine
6	☾	,17	50 53 47	29 42 29 42		6 7	SW	WSW	Rain	Clo.	Clo.
7		,02	51 53 8	29 48 29 52		7 9	W	SW	Fine	Sleet	Clo.
8		,12	45 50 39	29 44 29 29		7 6	SW	SE	Fine	Clo.	Rain
9			45 50 39	29 42 29 54		6 6	NNW	NW	Clo.	Clo.	Fine
10		,26	46 49 39	29 53 29 38		7 11	SW	SSW	Clo.	Rain	Clo.
11			49 54 42	29 50 29 64		15 14	S	SSW	Clo.	Fine	Clo.
12	D		51 53 49	29 76 29 88		14 14	SSW	SSW	Clo.	Clo.	Clo.
13		,35	50 51 47	29 90 29 82		14 15	E	E	Clo.	Rain	Sleet
14		,45	49 50 41	29 60 27 70		16 14	NE	N	Clo.	Rain	Rain
15			15 51 42	29 91 29 90		13 11	N	N	Fine	Fine	Fine
16			52 55 52	30 05 30 18		10 12	W	NW	Fine	Fine	Clo.
17			54 62 49	30 20 30 17		14 13	NW	NNE	Clo.	Fine	Fine
18			58 62 49	30 17 30 14		15 14	NNE	ESE	Fine	Fine	Fine
19			57 62	30 15 30 09		12 11	NNE	WNW	Clo	Clo.	Fine

The quantity of rain fallen in March is 26-100ths of an inch.

A REGISTER OF DISEASES

Between MARCH 20th and APRIL 19th, 1820.

DISEASES.	Total.	Fatal.	DISEASES.	Total.	Fatal.
Abdominis tumor.....	1		Fistula	2	
Abortio	6		Furunculus	1	
Abscessio	10		Gastrodynia	14	
Amenorrhœa	10		Gonorrhœa <i>pura</i>	7	
Amentia	1		Hæmatemesis	5	1
Anasarca	15	3	Hæmoptœ	9	
Aneurisma	3		Hæmorrhoids	10	
Aphtha <i>lactentium</i>	6		Hemiplegia	2	
Apoplexia	6	4	Hepatalgia	3	
Ascites	8	2	Hepatitis	14	
Asthenia	13		Hernia	4	
Asthma	42	3	Herpes <i>Zoster</i>	2	
Bronchitis <i>chronica</i>	6		—— <i>præputialis</i>	2	
Bronchocele	1		—— <i>humeralis</i>	1	
Cancer	1		Hydrocele	2	
Cardialgia	6		Hydrocephalus	10	5
Carditis	4		Hydrothorax	2	1
Catarrhus	72		Hysteria	8	
Cephalalgia	30		Hysteritis	1	
Chlorosis	1		Icterus	3	
Chorea	2		Ileus	1	1
Cholera	3		Impetigo <i>figurata</i>	1	
Colica	3		—— <i>erysipel.</i>	1	
—— <i>Pictonum</i>	1		—— <i>scabida</i>	1	
Convulsio	3	1	Ischuria	2	
Cystitis	1		Lepra	1	
Cynanche <i>Tonsillaris</i>	15		Leucorrhœa	11	
—— <i>Trachealis</i>	6	3	Lichen <i>simplex</i>	3	
—— <i>Parotidea</i>	5		Mania	3	
Diarrhœa	27	2	Melancholia	1	
Dolor lateris	2		Menorrhagia	11	
Dysenteria	4	2	Miliaria	2	
Dyspepsia	32		Morbi Infantiles*	40	
Dyspnœa	10		—— Biliosi*	27	
Ecthyma	4		Nephritis	1	
Eneuris	1		Obstipatio	5	
Enteritis	2		Odontalgia	10	
Entrodynia	4		Ophthalmia	21	
Epilepsia	6		Otalgia	3	
Epistaxis	5		Palpitatio	5	
Erysipelas	6		Paralysis	2	
Erythema <i>læve</i>	4		Pectoris Dolor	1	
Febris <i>Intermittent</i>	9		Pericarditis	1	
—— <i>catarrhalis</i>	18		Peripneumonia	7	
—— <i>Synocha</i>	7		Peritonitis	20	2
—— <i>Typhus mitior</i>	3		Pertussis	23	
—— <i>Typhus grav.</i>	3	1	Phlogosis	1	
—— <i>Synochus</i>	22	1	Phthisis Pulmonalis	27	12
—— <i>Puerpera</i>	3		Plethora	1	
—— <i>Remit. Infant.</i>	9		Pleuritis	18	

DISEASES.	Total.	Fatal.	DISEASES.	Total.	Fatal.
Pleurodyne	6		Stricture	2	
Pneumonia	18	4	Strophulus intertinctus .	3	
Podagra	5		Singultus	1	
Porrigo larvalis	2		Syphilis	16	
— decalvans	2		Tabes Mesenterica	8	2
— favosa	3		Tussis	6	
Prolapsus	1		Tympanites	1	
Prurigo mitis	1		Vaccinia	28	
— senilis	4		Varicella	5	
Psoriasis guttata	3		Variola	15	1
Pyrosis	1		Vermes	14	
Rachitis	1		Vertigo	11	
Rheuma acutus	19		Vomitus	3	
— chronicus	32		Urticaria febrilis	5	
Roseola	3		— tuberosa	1	
Rubeola	7		Total of Cases	1243	—
Scabies	88		Total of Deaths	—	51
Scarlatina simplex	1				
— anginosa	8				
Scrofula	4				

* *Morbi Infantiles* is meant to comprise those Disorders principally arising from denutition or indigestion, and which may be too trivial to enter under any distinct head; *Morbi Bilioi*, such Complaints as are popularly termed *bilious*, but cannot be accurately classed.

Observations on Prevailing Diseases.

The few past months have been principally marked by the severity of catarrhal and bronchial irritations: and these affections, when occurring in alternation with, or in immediate succession to eruptive disorders of an acute kind, have proved in many cases of extremely difficult management, requiring a rigid enforcement of the antiphlogistic regimen in spite of the already lowered energies of the patient.

Affections of the bowels have recently been rather prevalent. They have for the most part partaken of a kind of mixed character, simulating at once diarrhoea and dysentery, or rather proving a something intermediate between the two; and apparently being mainly constituted of a sub-inflammatory condition of the villous coat of the intestines. Castor oil and cretaceous mixture have proved the most efficacious remedies. A case occurred to the reporter but a few days since of gouty hæmorrhoids in an extremely painful degree. Relief was soon obtained from the violence of the pain by half-grain doses of the extract of stramonium. Our readers will see in the original department a communication from Dr. Williams, of Ipswich, in which that gentleman recommends the seeds of this plant. Will any correspondent say, whether in his practice these have been employed, and with what effect?

Mr. Furnival has been kind enough to transmit the following appendix to his list:—Pulmonic affections have been very rife during this month, among which were several of much importance. The two following, as being most prominent in the reporter's recollection, he will leave the pleasure to detail:—About the middle of March, he was requested to visit a poor man, who, the messenger said, was dying. On approaching the patient's bed, he saw an elderly man (about 60), apparently labouring under an attack of apoplexy. He was short in stature, and very muscular; face much suffused; pupil very contracted, and insensible to the stimulus of light; stertorous breathing, external jugular veins very full and promi-

ness, pulsation great in the temporal arteries, but not so strong at the wrist. On inquiring into the history of the case, it appeared that he had long been subject to asthma; and during the last ten days had taken expectorating medicines from a chemist, who had never seen him, but who prescribed for him according to his wife's description of the symptoms; that about two days before he was now visited, the expectoration gradually decreased, and his difficulty of breathing increased, his cough was not so troublesome as heretofore, and he complained of great disposition to sleep. On the day previous he slept nearly the whole time, and on the morning that he was visited he got up and *shaved himself*, appearing much better, after which he went to bed, and gradually sunk into the state that he was found in when visited. The plan adopted to relieve him, on the supposition that venous congestion of the brain had been brought on by the circulation in the lungs being obstructed, was abstraction of blood from the arm and temporal artery to the extent of about 24 oz.; ten grains of calomel were given, his head shaved, and a blister applied. The depletion appeared to relieve him for a little time, in consequence of which the reporter visited him again in about five hours after, with the intention of cupping him; but he had gradually sunk beyond the reach of medical aid, and he died in about a quarter of an hour. The desire to open the body was strenuously resisted.

In about four days after this, the reporter was requested to cup Mr. —, a person aged 42. The symptoms of this case appeared to be making rapid strides towards the fatal result of the former, and, from a conversation that passed regarding it, the reporter was appointed to attend. This person had many years laboured under asthma; he was accustomed to live well, and never restricted himself from the pleasures of the bottle. He had during several weeks complained of drowsiness, but never considered that of importance sufficient to require medical aid; he now felt a severe pain in the head, for which he wished to be cupped—his difficulty of breathing *very great*, and attended with a peculiar croaking noise; the cough and expectoration had ceased—his face much flushed, eyes very prominent and glassy, pulsation in the temporal arteries very strong, the pulse at the wrist 64 beats in a minute—a strong aperient mixture of magnes. sulph. in inf. sennæ, and a blister to the neck, were added to the cupping, as the primary remedies adopted. On the following morning he appeared to be completely stupid, *not* knowing any one, nor giving an answer without being roused from his torpor. He described the pain in the head to be a little abated; that he had dreamt a great deal about many strange things, but that he did *not* recollect any; he said there were funny black things playing before him—20 oz. of blood were drawn from the arm, the purgative mixture continued, (it *not* having *plentifully* operated), and five grains of calomel added; in the evening he was better, and had been more sensible. The next day he appeared better—the medicines had operated well; the blood had not put on any of the usually understood characteristics of inflammation; the purgative was discontinued, and a saline mixture, with 20 drops of tr. digitalis in each dose, and pulv. ipecac. was exhibited with the hope of reproducing the expectoration. On the 27th (the day following) his symptoms were greatly aggravated; he had been delirious the whole night, continually talking and muttering in his usual sleepy state; the pulse had risen to 98, and was very *coaty*—24 oz. of blood were again immediately abstracted (of which he knew nothing), the calomel and purgative repeated; in the evening slightly relieved—8 leeches to the temples, the pulse at 86 and strong, the blood very *buffy*.—28th. Remedies had the desired effect—he was better, and at intervals knew those about him: in the evening his drowsiness appeared to make hasty advances toward his former senseless state—with great difficulty the reporter succeeded in obtaining his friends' consent to allow further depletion—and about 28 oz. were directly abstracted, which blood was much more *buffed* and cupped than the former—the purgative and

digitalis mixture being continued. From this he gradually began to mend—as he daily appeared to regain possession of his mental faculties, describing himself to the various inquiries of the reporter as to have awakened from a heavy sleep, the whole of the remedial plans having been exhibited without his feeling them; and he now only complained of a sore mouth, created by the doses of calomel: there was still much occasional dulness about him, and a slight subsultus tendinum, with at intervals an intermitting pulse at 80—the digitalis was discontinued, and the purgative twice a day given. On the 3d of April he complained of a *heavy weight at the top of the head*, and seemed much *disposed to sleep*. His friends again became alarmed, and the reporter was hastily sent for. There now appeared a great difference in the patient's complexion, which was very pale; the difficulty of breathing had greatly increased; the expectoration, which had slightly returned before that day, had discontinued; and he remained perfectly motionless in his bed—the saliva flowed in great quantities from the mouth—the pupil rather dilated, and insensible to the stimulus of light—pulse at 70, but firm. It was advised to shave his head, and apply a large blister, but the relatives having given him over, and considering the advice only likely to torment him, it was objected to. A consultation with an eminent Physician in Spring Gardens was procured by the earnest desire of the reporter, and it was determined to blister him behind the ears, and exhibit a draught composed of *juss. sennæ, ammon. subcarb. with pulv. ipecac.* every fourth hour. The case being supposed almost hopeless from the evil habits of the patient, and his rather restricted finances caused an arrangement that no further consultation should be named, unless called for by the wish of his friends. However, the next day he appeared some little better, and by repeating the blisters every alternate day, the continuance of the draughts, and gradually administering beef-tea and other nourishing diet, he made rapid strides to convalescence. On the 12th all remedies were discontinued, except a cough mixture, in which the *pulv. g. traj. c. tinct. hyoscyami, et vin. ipecac.* were the principal ingredients; his old and troublesome companions (the cough and spitting) gradually returned, and he is now able to quit his bed-room and pursue his arrangements with his family.

These are not the only cases that have fallen under the care of the reporter lately, where obstructed circulation through the lungs has given rise to symptoms of apoplexy, as they were most unequivocally engendered in a young man labouring under acute pneumonia, by repeated efforts to prevent the distension of the lungs at each inspiration, fearing the attack of pain.

MR. GAITSKELL'S Remarks.

I AM sorry to report three fatal cases of cynanche trachealis, and, what is more afflicting, they compose all the branches of a family. The following is an outline of their cases:—

1st. Esther Cannon, eleven months old, was seized about one o'clock in the afternoon of Sunday, the 19th of March, with a slight hoarse cough and difficulty of breathing, accompanied with fever, which rapidly increased till death ensued, which took place about five in the afternoon of Tuesday, fifty-four hours after the attack.

2d. William C. three years of age, a fine healthy boy, was seized with similar symptoms on Tuesday about noon, which ran its course with such rapidity, that it terminated in death at one in the morning of Wednesday, twelve hours after the commencement of his illness.

We were solicited to visit this child about four hours before its death; but the activity of inflammation was such, that neither bleeding, vomiting, calomel, nor the warm bath, were capable of arresting its progress.

3d. Sarah C. a little girl, five years of age, was attacked about nine in the morning of Wednesday.

In the evening of that day active measures were resorted to, such as local and general bleeding, three grains of calomel every hour, blister, and a warm bath. This plan suspended inflammatory action till twelve at noon on Sunday, when, unhappily, it finished its career in death.

Whoever reads these unfortunate cases will lament that an active treatment was not timely employed, which might have produced more pleasing results. But the parents being poor, and unsuspicious of danger, wasted this valuable time, which ought to have been employed in stemming this torrent of mischief.

Upon opening the larynx, the mucous membrane was found highly inflamed, and this extended to its branches. In the upper part of the tube was an artificial membrane formed, which originated at the edge of the rima glottidis.

A List of the Cases admitted under the Care of the Physicians of the Universal Dispensary for Children, St. Andrew's Hill, Doctors' Commons, between December 31, 1819, and March 25, 1820.

Diseases.	No. of Cases.	Diseases.	No. of Cases.
* Synochus	50	Hæmoptysis	2
Febris Catarrhalis	15	Hæmatemesis	1
† Hydrocephalus Acutus	10	Rheumatismus	2
Chronicus	8	Epilepsia	2
‡ Phrenitis	10	Chorea Sti. Viti	6
Convulsio	17	Cephalalgia	8
Gastritis	13	Hepatitis Chronica	4
Enteritis	13	Paralysis	4
§ Pneumonia	40	Tormenta	3
Pertussis	70	Icterus	7
Morbilli	22	Erysipelas	8
Cynanche Tonsillaris	10	Erythema	6
Scarlatina	9	Urticaria	2
Tussis cm. Pyrexia	29	Varicella	4
Coryza Maligna	2	Purpura	2
Dysenteria	14	Ecthyma	1
Diarrhoea	32	Rupia	2
¶ Cholera Morbus	21	Lichen	2

* Under this head are included the cases of fever termed by some Practitioners "febris gastrica."

Synochus is not often contagious in children. It commences with synocha, and occasionally terminates in typhus. Then it is that it becomes contagious. Functional derangement of the viscera of the abdomen is generally accompanied, when considerable, with fever of this character. Synochus is, in fact, the more general form of fever in children.

† This disease does not appear to be so frequently idiopathic as has been supposed.

‡ A very common disease in children under three years of age.

|| Frequently mistaken for gastric irritation, with slight pyrexia. Phlegmonoid inflammation of the stomach is perhaps rather rare, but erythematous inflammation very common.

§ Of all the diseases of children, this is one of the most frequent and most fatal. Idiopathic pneumonia, and pneumonia supervening on other acute diseases, occurs extensively at almost every season.

¶ Cholera morbus is subject to great variation, as to being an idiopathic affection.

N.B. In future the cases will be made out in the order of Dr. Davis's "Nosological Arrangement."

Diseases.	No. of Cases.	Diseases.	No. of Cases.
Papulae	8	Enterodynia	14
Strophulus	10	Ascites	1
Apthæ	9	Dyspepsia	21
Psoriasis	3	Tabes	13
Herpes	11	Odontalgia	3
Scabies	20	Lumbrici	2
Porrigi	40	Ascarides	16
Anasarca	1	Tænia	4
Hæmaturia	1	Phthisis	3
Rachitis	8	Surgical Cases	103
Dysuria	1		
Colica	2		
Gastrodynia	13		
		Total	758

MEDICAL REPORT.

Synochus was the prevalent fever of the winter months. It was frequently connected with inflammation of the brain, which in a great many instances appeared to be the primary affection; as acute pain in the head, flushed countenance, vomiting, and slight redness of the conjunctiva, came on simultaneously, with pyrexia. In other cases, synochus developed itself with functional derangement of the liver, stomach, and intestines, whilst the brain was but little disturbed. Nor was it unusual for the functions of the brain and abdominal viscera to participate at the same time in symptoms indicative of inflammation with fever of the character of synochus. The patients, however, for several days before pyrexia declared itself, were languid and irritable, their countenances sunk and contracted; they were restless, took food with repugnance, and rejected it; the lips were dry, the tongue was furred, and the skin flabby. Then succeeded headach, gastrodynia, enterodynia, chills, and paroxysms of fever. After continuing in this state for three or four days or a week, the patients were attacked with synochus modified in different subjects, in the manner described. No case of typhus was brought to the institution during this season: and as the spring approached, the cases of fever were still of the nature of synochus, but evidently partook more of the bilious character, having, as an accompaniment, either severe bilious vomiting or diarrhœa.

By far the most fatal disease of the winter months was pertussis. It attacked children of every age with the greatest severity; and it rarely happened that a child passed through all its stages without experiencing, at some or other period, pneumonia, ardent pyrexia, convulsions, or a long train of distressing symptoms, the result of a general functional derangement of the thoracic and abdominal viscera—symptoms which always protracted the term of recovery to an unusual length, gave an obstinacy to the disease not commonly met with, and in numerous instances placed the patient's life, from some sudden and unexpected aggravation, in a few hours, in a state of danger from which no subsequent treatment could recall it. Pertussis, pneumonia, and convulsions, in accompaniment with a degree of phrenitis, frequently co-existed, and constituted a mass of disease for which no effectual remedy could be found, and which plainly manifested the propriety of adopting active and vigorous measures in the early treatment of so formidable an infanticide. Children from two months to ten years of age were indiscriminately attacked; but those under two years had the disease, as usual, in the most severe manner. Several however died above that age, whilst many infants three months old survived.

It appears by the catalogue of diseases, that besides synochus and pertussis, there was an influx of other acute affections: pneumonia, morbilli, enteritis, cynanche tonsillaris, phrenitis, cynanche scarlatina, erysipelas,

febris catarrhalis, dysentery, gastritis, and hydrocephalus, all appeared in the course of the winter. Most of the cases of hydrocephalus were combined with inflammation of the thoracic and abdominal viscera, and generally ended unfavourably. Idiopathic phrenitis, on the contrary, by very active means employed at first, was successfully treated.

In the beginning of March, cholera morbus, with gastritis and enteritis, became frequent and extremely severe. Some children died a few hours after the attack, convulsed. In this month, pertussis grew milder, as did morbilli. It is singular, that in so severe a winter as the last, tracheal affections among children were rare; whilst epidemical catarrh committed extensive ravages, by quickly bringing on pneumonia and all its consequences. Several cases of chronic hepatitis were admitted. From the extensive enlargement of the left lobe of the liver in two or three of these patients, the left hypochondrium was remarkably distended and hard, the tumour filling it reaching up beneath the ribs, and descending as low as the spine of the ilium, so as to convey the idea of an enlarged spleen. Two children who laboured under this disease were under one year of age: both were sallow and hectic when admitted; and after lingering three or four months, died ultimately, under the combined influence of this disease and pneumonia. In another child, recently received into the institution, there is a similar enlargement in the left hypochondrium. There is a good prospect of this child's recovery.

Jaundice, in children from one to two years of age, was among the diseases of the season. It was generally followed by a tedious functional derangement of the whole of the chylopoietic viscera; not unfrequently by tabes mesenterica: acute rheumatism appeared in two instances; ophthalmia, in connexion with glandular disease, in many instances. Several cases of chorea St. Viti and epilepsy occurred; and a long list of dyspeptic affections, combined often with rickets, mesenteric disease, and colliquative diarrhoea. A peculiar case of hæmatemesis also came under notice, in a boy ten years of age, who invariably rejects florid blood from the stomach each time of going to stool. This affection has continued three months; but the boy's health does not decline.

J. B. DAVIS, Physician.

SURGICAL REPORT.

The extreme and immediate benefit generally resulting from the discharge of matter from abscess seems to indicate its propriety, even under the most unfavourable circumstances. The most convincing instance of this occurred in a child, who was the subject of three extensive abscesses, under the fascia lata, communicating with the psoæ, on the right shoulder, and on the left angle. There was incessant cough, convulsions were frequent, and the hectic state was rapidly advancing. The tumours were repeatedly punctured by a small hydrocele trochar, and upwards of twelve ounces of pus, at different times, evacuated; the integuments were tightly strapped; and very little medicine was given. The improvement was immediate after the first operation, and the child was discharged perfectly recovered.

Scrofula is so general a term, and exhibits itself in so many shapes, that it is difficult to decide exactly what disease is, or is not, allied to its nature. Of this doubtful character, appear to be glandular enlargements, of which many cases have been admitted. The appearance, modes of living, &c. of the patient, will not always assist us in our diagnosis. The tumour will proceed rapidly to suppuration in some emaciated, and apparently strumous constitutions; in others, on the contrary, of a healthy appearance, it will assume a languid disposition, or continue stationary for some considerable space of time. Suppurations of the cervical glands are commonly the most difficult to heal, principally owing to muscular action. Little benefit appears to have been derived from the application

of leeches to an indurated absorbent gland, however early the plan may have been adopted.

Among the most complete cases of struma is a boy, admitted first with indolent ulcerations on the thigh: they were cellular-membranous, discharged a thin ichor, and their orifices were fistulous. The certain metastasis of scrofulous inflammation could not be more exemplified than in this case; the skin, cellular membrane, vertebræ, tarsi, and testicle, having been alternately attacked. The epididymis of the right testicle is now healing from an abscess formed in it. During its progress, the discharge on the thigh ceased, but is now returning. There is an appearance of fatuity in the child, which warrants a suspicion of cerebral participation in the disease.

Several cases of incurvation of the spine having been admitted, generally accompanied with glandular disease in the abdomen, emaciation, pyrexia, and other scrofulous symptoms. Phosphate of lime has been administered in those instances in particular which seemed to indicate a want of disposition to earthy structure; but its effects in various doses were such as not to warrant any substantial recommendation. Two cases of confirmed disease of the hip-joint have been presented.

Several children, with congenital hernia, attend at the dispensary. In one instance, the testicles were not in the scrotum, but that of the tumefied side could be distinctly felt below the ring with the protruded viscera. The testicle seemed to suffer partial strangulation, and to have formed some close adhesion with the peritonæum, as it intimately followed the viscera on their return into the abdomen. Their adhesion might probably impede the action of the gubernaculum in directing the descent. Three cases of severe inflammatory affection of the ear have occurred: in one there was a suppuration between the auricle and mastoid process, bursting into the meatus, and followed by the growth of fungus in that canal. Small doses of calomel, with the injection of lotio sulphat. zinci, effected the cure in a fortnight. In another, which was followed by a sanious discharge, acute pain, pyrexia, and loss of hearing, there was a suppuration of the tympanum and ulceration of the membrane, although no air passed out at the meatus during inflation, when the nose and mouth were closed. This circumstance, however, is no proof of the soundness of the membrane. Tonics have been of much benefit, combined with calomel, and local applications, where hæmorrhage has occurred to any extent. A degree of paralysis of the lower limbs has appeared in some children generally during dentition. In these cases, as in most of the other symptomatic affections of dentition, incision of the gums is the only treatment necessary.

Cases of erysipelas phlegmonodes of the face have been presented; one from the irritation of a very minute suppurating wart, extending over the whole face and neck. Suppuration will seldom occur if the disease is carefully treated with laxatives and evaporating lotions.

Two cases of "ecthyma" have been admitted: one on the labia of an infant; the other (ecthyma luridum), attacking the scrotum of a boy, and extending across the perinæum, and round the verge of the anus, is attended by occasional hæmorrhage and considerable prostration of strength. The first is now perfectly cured by the use of sarsaparilla, &c.; the other is improving under the same treatment. The scabs in the last case have more the appearance of rupia; but it is evidently pustular, and not vesicular. This is, however, of no importance in a practical point of view.

Cases of abscess, porrigo favosa, psoriasis, ulceration at the edge of the rectum, from ascarides, &c.; hydrocele, phymosis, exomphalus, ophthalmia, distortions, injuries of the joints, &c. have been, and are at present, under treatment at the dispensary.

WALTER C. DENDY, Surgeon.

1, Martin's Lane, Cannon Street,
April 17, 1820.

MONTHLY CATALOGUE OF BOOKS.

A Treatise on the Diseases of the Urethra, Vesica Urinaria, Prostate, and Rectum. By Charles Bell. A new Edition; with Notes, containing the Criticisms of the Editors of the Foreign Editions, and the Opinion of Foreign Authors on these Diseases; by John Shaw, Surgeon, Demonstrator of Anatomy in the School of Great Windmill Street. 8vo. 12s.

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Weatherhead's Treatise on Diseases of Rickets. 12mo. 5s. 6d.

NOTICES TO CORRESPONDENTS.

We have only to acknowledge this month the receipt of two Communications, the one from Dr. Dickson, the other from Mr. Fosbrooke.

We have been obliged to defer the Reviews of Haslam and Accum till the next Number, when they will appear, together with an Analysis of Dr. Cooke on Apoplexy, and Dr. Clarke's Medical Notes on Climates.

Dr. Maclean's Work also, entitled "Specimens of Systematic Misrule," will shortly come under our notice.

ERRATUM.—In our review of Cooper's Essays, in March, line 40, page 316, for "whence one head of the rectus," read "whence each head of the rectus."

* * Communications are requested to be addressed (post paid) to
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| Action of the muscles which surround the neck of the bladder, and their importance in explaining symptoms. | <i>Description of the Cases which require the Urine to be drawn off by Instruments, and of the Operation of the Catheter.</i> |
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Of Pain and Irritation in the Urethra, Bladder, and Perineum, from Disorder of the Bowels, mistaken for actual Disease in these Parts.

Cases where the patients were treated for stricture, although they had no obstruction.

Case where the patient had been long under the care of surgeons for stricture, at last cured by attending to the state of the bowels.

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1st Case. Bursting of the urethra, sloughing of the urethra. Patient saved by an incision.

2d Case. Bursting of the urethra, where repeated punctures were made; but ineffectual, from being too small and superficial.

3d Case. The simplest and most common case of rupture of the urethra. The patient saved by a timely incision.

4th Case. Burst urethra. The patient dying in consequence of an incision not being made in good time.

5th Case. Burst urethra, where sloughing of the scrotum was prevented by an incision.

6th Case. Showing the increase of danger where the urine passes into the cavernous body, and the state of the penis when nothing has been done for the patient.

7th Case. Burst urethra and extravasation of urine into the scrotum. Patient lost in consequence of the surgeon mistaking the effusion of urine for the effect of common inflammation.

The next three cases are different from the preceding seven, in the rupture not taking place so suddenly.

1st Case. Stricture with abscess in the perineum. The patient in the first instance saved by an incision; but on a return of retention, worn out by irritation.

2d Case. A similar case to the last; but attended with remarkable destruction of the urethra.

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Two cases of common erysipelatous inflammation of the scrotum and penis, followed by sloughing, which might have been mistaken for cases of ruptured urethra.

Cases illustrative of the common Urinary Abscess, which forms slowly, either from Irritation within the Canal, or from an Ulcer in the Urethra.

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Operation upon fistulæ with the knife _____ with the wire _____ with the ligature.

Appendix.

Twenty-six cases illustrative of the varieties of common stricture.

Eight cases illustrative of false passages made by the caustic and the bougie.

Six cases showing the state of the bladder in consequence of stricture.

Five cases of puncture of the bladder.

One case of rupture, or perhaps sloughing of the bladder.

Eight cases, showing the effect of stricture on the prostate.

Ten cases of burst urethra and fistula in perinæo.

Eleven cases illustrative of the various tumours and diseases of the prostate.

Cases of disease of the rectum.

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THE
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No. 78. JUNE 1, 1820. VOL. XIII.

PART I.

ORIGINAL COMMUNICATIONS.

I.

On Amputation at the Shoulder Joint. By J. COLE, M.D.,
Surgeon to the Forces.

MODERN surgery has much to be proud of, and its members may be permitted to boast, that no other art has made such rapid strides during the last thirty years; no, not even that to which surgery itself is so much indebted, whose votaries are raised to the highest rank in the state, and deservedly covered with never-fading laurels.

This operation, at the bare idea of which our ancestors would have been horror-struck, has been so often, and so successfully performed during the late war, that it may be considered now as divested of all unnecessary terror; and that, therefore, the young Surgeon, when called on to perform it, will possess that confidence and self-command, that its practicability and the probable recovery of his patient cannot fail to inspire. He, however, should be cautioned against calculating on obtaining the wonderful success of Baron Larry*, who, under the most unfavourable circumstances, performed the operation *eleven times in twenty-four hours*, and lost only

* Je fis dans les premières vingt-quatre heures, onze amputations du bras à l'articulation scalpo-humérale. Neuf de ces sujets furent complètement guéris avant notre retour de Moscou: les deux autres succombèrent à la dysenterie. — Vide *Mémoires Chirurgicales, par Barron Larry*, tom. iv.

two (and those by dysentery) of his patients; or of attaining the dexterity of another French Surgeon*, who cuts off the upper extremity of a man in less time than an alderman takes to carve the wing of a partridge. I will, however, spite of all this velocity and success, venture to communicate the following cases, precisely as they occurred, as they will not only serve as additional proofs (if any were necessary) of the efficiency of the thumb of a steady assistant in commanding the current of blood in a large artery†, but afford me an opportunity of describing two modes of operating, the one or the other of which, under most of the circumstances that demand the operation, will be found feasible and advantageous.

William Peachman, of the 2d battalion of the 1st guards, was wounded by a musket ball at the affair of Quatre Bras, on the 16th June, 1815. He was received into the Minimes General Hospital at Antwerp, on the 18th or 19th, with a compound fracture of the right elbow joint, extending up the humerus; the whole of the arm in a state of extreme tension, and considerable constitutional irritation. From the moment of his admission, no hope was entertained of saving the limb; and although the most rigid antiphlogistic treatment was adopted, the excitement continued so considerable, that a favourable opportunity of removing it did not occur until the 5th of July; and even then it was impracticable to save any portion

* On parvient à desarticuler l'humerus et à separer le bras en aussi peu de temps qu'on met un habile découpeur à detacher l'aile d'un perdrix. — Vide *Richerand*.

† I cannot persuade myself that I understand clearly the meaning of Mr. Charles Bell, who, in one of his Quarterly Reports, says, "When an artery is wounded so high that there are no means of restraining the blood, so that the artery may be neatly and securely tied, an incision to admit the finger, to compress the artery nearer the trunk, will make the case simple, as thus: If a man be wounded in the axilla, and the sponge suppresses the bleeding, but leaves no room for the operation of tying the axillary artery, I have recommended that a small incision be made above the clavicle, to let the finger down upon the first rib; upon it effectually compress the artery, and let the wound be cleared, and the bleeding vessel securely tied."

This appears to me, with all due deference to the talents of him who inculcates it, to be an extraordinary mode of simplifying a wound. Most Surgeons, and perhaps every Surgeon not imbued with the Windmill Street tenets, would do as the House Surgeon did, as given in the same Report, 277, "command the hæmorrhage by pressing with the finger on the subclavian artery," without simplifying the original wound by adding to it another.

of the humerus, abscesses having extended to the point of the shoulder: its removal from the scapula was therefore determined on.

The patient seated on a chair, supported by orderlies, with a medical assistant so placed as to have his thumb on the subclavian artery, where it emerges from between the scaleni, just above the middle part of the clavicle, I commenced the operation by making diverging incisions with a scalpel, from the point of the acromion anteriorly and posteriorly, through the integuments, and then keeping close to their outer edge, through the muscles, down to the bone, leaving the body of the deltoid untouched, thus Δ between them; the capsular ligament was, as far as possible, then cut through, as well as the long head of the biceps, with the same instrument.

The arm being then brought a little from the side, and an amputating knife substituted for the scalpel, the extreme angles of the two incisions were united by one sweep through the soft parts from within, outwards, and the limb disengaged without the loss of blood; a glance of the eye sufficing to inform the assistant *when* to apply the pressure required. The mouths of two large arteries were seen gaping, of equal dimensions, and running close to each other; leaving no doubt on our minds of their arising from a bifurcation of the axillary itself: they were seized with tenaculums, and separately tied; the only vessels requiring a ligature*. The flaps were brought together, which were found to neatly and completely cover the wound: they were retained in apposition by three adhesive straps.

The patient was tranquil after the operation, passed a good night, and the following day every prospect of success was held out. On the 11th, the adhesions had considerably advanced. The pus secreted was healthy, and the strength improved. On the 14th, when the dressings were removed, the appearance of the stump was good, and the wound reduced to a simple line; the ligatures remained; an abscess in the side was opened with a lancet.

During the night of the 15th there was considerable hæmorrhage from the wound: for some time the patient was impressed with the idea of its being pus trickling down his side, and did not call for assistance until he felt very faint. The bleeding ceased before the orderly medical officer could arrive, but unfortunately not before the quantity lost was so great as to produce death the same morning.

* A case occurred to me in Walcheren, during the siege of Flushing, in which I amputated the fore-arm, and not one artery bled, although the stump was placed in warm water, and cordials given to the patient; nor was there any subsequent hæmorrhage.

The artery was found to have sloughed. At that period every moment of our time and every faculty of our minds were so urgently demanded by the living, that minute examinations after death could not be made, and much valuable information was therefore buried with those honourable victims.

This poor fellow may be considered as particularly unfortunate; for had his arm been removed on the field of battle, his life, in all probability, would have been preserved: at all events his sufferings would have been greatly lessened. Or had the nature of the hæmorrhage been earlier discovered, it would have been, doubtless, immediately arrested by compression, and the patient in all likelihood afterwards been placed out of danger, by the ligature of the subclavian artery.

The following case, similar to the former in very many particulars, will, from its more fortunate result, by many be deemed more interesting:—

Benjamin Varendor, aged thirty-two, of the 32d regiment, was wounded on the same day (at the affair of Quatre Bras), by a musket ball passing through the elbow joint, fracturing the olecranon and humerus. He likewise was sent to Antwerp, a distance from the field of forty-four miles: and when received into the Minimes General Hospital, on the 21st of June, was in an alarming state of constitutional irritation, and the whole of the limb inflamed and tense. By fomentations, poultices, and the strictest antiphlogistic regimen, the high action was reduced; but by this time the general strength was greatly exhausted; hectic fever had declared itself, with rigors approaching in severity the cold stage of ague. On the 7th of July, generous diet, bark, and mineral acids, were had recourse to, but the strength daily declined; and on the 11th, excision at the humero-scapular articulation was determined on; indeed, (as in the former case) extensive sinuses and diseased integuments would have rendered any other operation nugatory. The mode I adopted was, as nearly as circumstances would allow, the same as the preceding; the compression by the thumb, or armed key, was found completely to command the blood in the subclavian; the gaping mouth of the divided axillary was readily seized by a tenaculum, and tied; two circumflex arteries also required the ligature. The flaps of the wound were found neatly to cover the surface, and were readily retained in contact by adhesive straps placed horizontally. A compress and bandage being applied, the patient was removed to his bed, feeling, as he expressed himself, released from a heavy burthen.

12th.—Has passed a better night than he has done since receiving the wound; nevertheless, his exhausted state and tendency to hectic make us not over sanguine in the expectations of recovery.

19th.—His health has rather improved; no untoward symptom has arisen, and union is making rapid progress.

27th.—The stump doing extremely well; but from the constant pressure in so emaciated a frame, the integuments on the sacrum have, spite of every precaution, ulcerated.

30th.—The ligatures came away, and the stump is nearly healed: the ulcer on the sacrum looks cleaner; he however is obliged, from extreme debility, to keep his bed; and this debility is increased by profuse night sweats.

August 4th.—Stump nearly well; the ulcer on the sacrum extensive.

6th.—In consequence of the concentration of all the British wounded, Varendor was removed to the Facon Hospital. The stump nearly healed; yet from his tendency to hectic, his extreme weakness, ulceration of the sacrum, and disposition to phthisis, it required all the zeal and ability of my friend, Staff-Surgeon Bliche, (who had charge of that hospital) to complete the cure; which, however, after much labour, was ultimately effected, and he embarked, recovered, for England.

In neither of those cases did I scrape the glenoid cavity, or stuff it with lint, but depended on producing adhesion by keeping the parts in contact by appropriate dressings and the careful application of compresses and bandages.

The subject of the following observations must be considered particularly unfortunate.—William Godwin, of the 23d light dragoons, not more than twenty-one years of age, was severely wounded in the shoulder joint by a musket ball, on the 18th of June, 1815, at the battle of Waterloo. From that moment to the 13th of July he had been moved from place to place without any active means being employed. He was received, by transfer from the Jesuits' Church, into the Minimes General Hospital: his condition was then deplorable: nearly a month had elapsed: extensive abscesses had formed around the shoulder joint, through which the ball had passed from before backward; the discharge was foetid, profuse, and ill-conditioned; the constitutional irritation and general debility were very great. Every thing was done to ameliorate his situation. On the 15th, the anterior wound, by which the ball had entered, was dilated longitudinally; and the destruction, both of the bone and soft parts, was found so considerable, as to make it evident

excision of the humerus was the only remedy. This was proposed to be immediately completed; for the incision already made was so directed as to serve as the first step in the operation. Unfortunately the patient could not be brought to submit to it. He had lost that firmness of character which, doubtless, was his portion. Restless nights and dolorous days had worn him to the bone, and unstrung his once high toned nerves.

With a mind ill at ease, confirmed hectic, immense discharge, and constant pain, his death was rapidly approaching, when, on the 26th, he gave his reluctant assent to the oft proposed operation. The situation of the wound and subsequent destruction of the soft parts left no alternative as to the mode to be adopted. The deltoid flap was the only practicable measure, which, though preferred by many, I consider as much less likely to succeed than that already described. The patient supported by orderlies in a sitting position, and the subclavian placed, as before, under the control of a steady hospital assistant, with a view of getting rid of diseased parts, I made with a scalpel the anterior incision, in the direction of the fibres of the deltoid, farther from its edge than I wished, and terminated it at the insertion of that muscle. The posterior incision was made likewise in the direction of the fibres, commencing about a couple of inches behind and below the posterior point of the acromion, and joining (at the insertion of the deltoid) the inferior angle of the anterior wound. In doing this, enormous quantities of fœtid pus gushed out; the flap was raised; the tendons of the supra and infra spinatus, teres minor, and subscapularis, were divided; the capsular ligament was cut into, and the joint exposed, when a more unpromising appearance never appalled an operator: the head of the humerus was shattered, the glenoid cavity splintered, and the fracture extended along the body of the scapula far beyond our reach; and sinuses, from various diseased quarters, poured out their offensive contents.

The blood-vessels were, however, seized with a tenaculum, and secured; the flaps brought down, the stump dressed, and the poor fellow placed on his bed with as much speed as possible; for I felt disheartened at the misery of the man, and feared that he might expire on the table.

This, indeed, was the prevailing sentiment; and at a time when intoxicated with the utility of our art, we felt abashed at its bounds being so unexpectedly and decidedly marked. In the evening he was found to have rallied amazingly; had taken nourishment and cordials, and walked from a small room (where he had been placed to breathe his last in peace)

To his former ward, that he might occupy his own bed, and be in the neighbourhood of his former companions. The first night after the operation he described to be by far the best that he had passed since his admission: his strength seemed for some days to increase, and his spirits greatly improved; but we never indulged the expectation of ultimate recovery. The discharge was profuse: colliquative diarrhoea came on, and death put a period to his sufferings on the 4th of August.

The anxiety of the Surgeon never was so ill repaid; nor did I ever feel less satisfaction than when bringing down the flaps on a mass of disease. I lament exceedingly, exhausted as my patient appeared to be, that I did not give him the only chance, by removing the scapula. I think by it every morbid portion might have been removed, and yet nearly enough healthy integument preserved to cover the enormous wound.

W. W. Fraser, Esq., Deputy Inspector of Hospitals, in an ingenious essay on this subject, calls operating at the articulation of the humerus our "ne plus ultra;" although the object of his valuable publication is to inculcate the necessity of going further, by sawing off the processus coracoides and acromion. I feel assured, that had I previously perused his publication, I should have availed myself of the advice it inculcates; and although still doubting of the propriety of it when the scapula is uninjured, should have been emboldened in this instance to have attempted the removal of the whole of the bone.

II.

Observations on Injuries of the Head. By the Same.

In the extensive range of our professional duties, there is not one more gratifying than that species of resurrection conferred by simply removing the pressure on the brain produced by a depressed portion of the cranium. A human being, apparently a corpse, is suddenly restored to light and life; and is at the same time conscious of existence, and grateful to his deliverer. This was particularly exemplified in the person of a Scotch lad, who, in one of our fruitless attacks on Antwerp in the month of February, 1814, was wounded in the head, and sent back to the receiving hospital at Groot Zoondert, then under my charge, a distance of at least fifteen miles, and during one of the coldest nights of a winter in Holland. From the number that were poured

on us that dreadful night, and the little assistance we could command, this poor youth's forlorn situation escaped particular notice until daylight, when, cold and motionless, it was feared the vital spark was extinguished. He was, however, placed on a table: I made some bold incisions through the scalp, removed the loose pieces of fractured bone, and raised all the depressions, when he opened his eyes, gradually recovered the powers of speech and recollection, mentioned his name was — —, and that he belonged to the second battalion of the seventy-eighth regiment. A few hours after he was again put into a waggon and conveyed to Welhamstadt, a distance of some miles, then the only place of safety in our possession, where he recovered without an untoward symptom. To those unacquainted with army practice it may appear strange that such a case should be sent so far to the rear without any thing having been done by the Surgeons in the first line; and, indeed, accustomed as I have been to the hurry and confusion of war, I have but seldom witnessed such an oversight: the indication was so marked, that the veriest tyro could not have mistaken it. That some time elapsed after his arrival before any thing could be done for him, is readily explained by the crowd of wounded (more than a hundred) sent back on us at midnight without any previous notice, and without a single orderly man to assist them, or indeed to get them out of the waggons. Mr. Gunson, the purveyor, had only possession of the building the preceding day; and the few *bosses* that he had engaged to scrub it out were the only servants he could muster. With the utmost difficulty, therefore, and with great loss of time, those frozen miseries were removed from the waggons, placed on palliasses, and refreshed with tea. Then, tired as we were, (for most of this labour was performed by my friend Gunson, myself, and two hospital assistants,) and disinclined as we ought to be, from principle, to remove dressings so lately applied, yet we were obliged to do it, as, from the extreme cold, the tension was so considerable, that every man complained of the tightness of the bandages, and blessed the hand that cut them off, and by fomentations, poultices, and lighter dressings, assuaged the torments he had been in. We had not yet finished our labours, when we were, in this remote situation, visited by a member of the British parliament (Mr. Idle), who gratified us by his polite attention, and cheered us by the approbation he expressed.

Before I take my leave of this chateau, which was afterwards accidentally burnt down by some of our troops, I may mention that two officers of the 37th regiment were

admitted into it, each of whom had lost a leg by the same round shot, whilst walking in the village of Brischat. Assistant Surgeon Stobo was between them at the time, and although walking arm in arm, escaped untouched.

In the injuries of the head which follow, the fact that little or no relation can be traced between the portion of the brain injured and the part of the body affected with palsy is exemplified. Sometimes the paralysis is confined to one member, sometimes to one side; now to the upper extremities, and now to the lower: and yet the site of the wound to all appearance the same. I am, however, far from believing that the portion of the brain injured is precisely similar; but the fact tends to show how very difficult, if not impossible, it is to assign the function proper to each particular particle of the brain, and through the thickness of a skull, attempt to measure the capacity of a man, designate his ruling passion, and point out his propensities.

William Rogers, aged only nineteen years, belonging to the 32d regiment, was wounded at Quatre-Bras, on the 16th June, 1815, by a musket ball. On the 18th he was admitted into the Minimes General Hospital at Antwerp. The ball had struck the inferior angle of the left parietal bone, taking a direction upward and forward for nearly two inches between the tables of the cranium: it could be distinctly felt with a probe, and gave the idea of its having rather raised the upper table than depressed the lower. The power of speech was much impaired; but being exhausted with fatigue, he was placed in bed, and was much refreshed by a sound sleep. On awaking, he showed no other symptom of either concussion or compression. During his recovery, he told me that on receiving the wound he felt senseless for a few minutes, then recovered his recollection, heard and understood the observations of his comrades, but was totally incapable of speaking, which seemed to arise, not from the want of power to form words, but from the impossibility he experienced to embody them, as it were, with sound. All his senses were perfect. His battalion moved on, leaving him in charge of a soldier, who, little suspecting he would be ever able to communicate the circumstance, left him for the sake of plunder. He soon recovered sufficiently to retire out of the reach of shot, where he lay down for the night. The following morning, finding the picquets retreating, he fell back, and by the evening found himself at Bruxelles, where he was superficially dressed. On the 18th he removed to Antwerp, on one of his officer's horses, where I received him, overwhelmed with fatigue, and exhausted by privation. On the morning:

of the 20th there was considerable re-action, with pain in the forehead, increased by light or sound. Thirty ounces of blood were taken from the arm, cold applications kept to the head, and a brisk purgative ordered: stimuli of every kind were avoided: the diet was as low as possible. By these means the pain was relieved, the action moderated, and the wound was nearly healed: the powers of speech had increased, but he still articulated imperfectly. When nearly in a state to be discharged from the hospital, on the 16th of July, the wound began to re-open. On the 18th the symptoms of compression were alarming. I dilated the wound, and removed a small quantity of splintered bone. On the 22d symptoms of phrenitis appeared, which were with difficulty got under, by copious bleedings that and the following day. On the 24th he was much relieved: 26th, another small piece of bone came away, leaving the dura mater completely exposed. From this period to his perfect recovery no untoward symptom arose, although the ball was never removed, but seemed to have descended from its first situation towards the petrous portion of the temporal bone.

We find that memory is sometimes destroyed and the power of speech preserved; at other times the power of speech is lost (as in this case) whilst memory retains her seat. In some instances, after complete stupor, the intellectual faculties have been restored, except the recollection of proper names.

Charles Murray, aged thirty-three, belonging to the 1st regiment of guards, was admitted into the Minimes General Hospital on the 25th of June, with fractured skull, occasioned by a musket wound received at the battle of Waterloo, a week before. A considerable portion of the left parietal bone was depressed, and the right arm only was completely paralyzed. The following morning I applied the trephine, and elevated the depressed portions of bone. Every bad symptom disappeared, and the arm almost immediately recovered its power: not any untoward symptom arose afterwards; and on the 28th of July he embarked for England.

William Kitchen, aged forty, of the 1st regiment, was also wounded by a musket ball on the 18th of June, which fractured the cranium, and depressed a considerable portion of both parietal bones. In this situation he was admitted on the 27th, with the lower extremities only completely paralyzed: there was no loss of speech, or involuntary discharge of either fæces or urine. On the following morning (ten days after the injury was received) I applied the trephine, raised the depressed portions of bone, and removed the

detached. Every bad symptom disappeared; the power of the lower extremities was gradually restored, and on the 28th of July he also embarked for England.

I believe the propriety of applying the trephine in those cases will not be contested; why it was not done sooner, I cannot well explain. The young Surgeon, however, must not be misled by this success, but must well consider the necessity of an operation before he determines on it; for however culpable it is to omit operating when it is necessary, it is not less so to perform an operation when it can be avoided. I think it was John Hunter who said, (and whose sayings and whose works should be engraven on our memories,) "that an operation was a reflection on the healing art; and that a Surgeon should never approach his victim but with humiliation." Whilst on this subject, I cannot avoid giving a quotation from Sabatier, who observes, when speaking on the operation of the trephine, "*Le sang qui sort de parties nouvellement divisées ne permet pas toujours de continuer l'opération: lorsqu'il vient avec abondance, il faut la différer de quelques heures, afin qu'il ait le temps de s'arrêter.*" This I must consider to be extraordinary advice from so prudent a teacher as Sabatier. To leave a subject who required trepanning, in the midst of the operation, in order that a bleeding of the integuments might stop, and putting off for some hours the completion of the operation for so idle a purpose, shows but very little attention to the proximate cause of those symptoms that called for the application of the trephine, and to the increase of danger that must be produced by the delay.

III.

On Experiments on the Par Vagus. By CUNICULUS.

IF we displace the smallest pin in a watch, the machinery will stop; but how would the maker smile were we to argue from this, that the movements of the watch depended entirely on this pin!

Somewhat similar is the reasoning employed by those gentlemen who have of late been engaged in making experiments on the stomach, heart, and lungs. One author says that secretion is produced by the nerves, because in cutting the *par vagum*, he found that the secretion of the stomach no longer went on: another contradicts him, and says, it is not owing to nervous energy, but to the vascular

system : and a third will attempt to show that it is neither ; that it depends on the spinal marrow.

There can be little doubt that another experimentalist would be as correct were he to say, that digestion depended on the small intestines, for he had found that the parsley in the stomach of a rabbit was not digested in consequence of his having put a ligature round a portion of the small intestines.

This contracted view is a consequence of the modern experimentalists not having attended to the combination of nerves ; to the number of nerves that are sent to each viscus ; and to the fact, that nerves themselves are not endowed with any particular function, but that they are the medium by which the several parts of the machine (each of which is to a certain degree perfect in itself) are combined into one whole. Thus we know that the heart, the lungs, the stomach, and the liver, all differ in their functions ; yet that the same nerves go to them. It is pretty evident why all should have branches from the same nerves ; for though different in structure, it will be allowed by every one, that no one of these viscera could be perfect in its function unless it were in connexion with the others. This is beautifully exemplified by Mr. Bell, in his lectures on vomiting, respiration, &c. and in his views of the comparative anatomy of the nervous system.

A person, in his first dissection of the nerves of the neck, is very much puzzled with the innumerable twigs of nerves which he finds on the neck and chest. I shall endeavour, from recollection, to give an idea how Mr. Bell unravels them in his beautiful lectures on the nerves of respiration.

He shows the par vagum arising from the corpus olivare, and at this part connected with the glosso-pharyngeal and spinal accessory ; he traces the par vagum to the upper part of the larynx, to the lower part of the larynx, to the heart, the lungs, the stomach, and throughout its whole extent, intimately connected with the sympathetic.

The glosso-pharyngeal he traces to the muscles of the fauces and tongue : he shows that the spinal accessory, called by him superior respiratory, instead of passing out directly from its origin, from the spinal marrow opposite to the third cervical vertebra, passes up into the skull, to be united with the par vagum, and then coming down to be distributed to the muscles of respiration on the shoulder. By this first view, there is an immediate connexion displayed between the lungs, the muscles of the larynx, throat, and shoulders ; but there are still organs of respiration both above and below these parts.

The nostrils and the mouth are combined in action with the lungs, by the union of the par vagum with the portio dura; the deep and superficial muscles of the tongue, by the intimate connexion between the par vagum and the ninth pair with its descending branch; the deep muscle of the chest, by its union with the phrenic; the superficial muscle, by its connexion with the external respiratory, a nerve which has been neglected by all other anatomists, but which Mr. Bell shows to take an origin and course in every respect similar to the internal respiratory, or phrenic.

After having given the enumeration of all those nerves in connexion with each other, Mr. Bell observes, "When we consider that the lungs, heart, and stomach are plentifully supplied with other nerves, we cannot suppose that the par vagum is going down to bestow only sensibility, but rather by its connexions to reunite the muscular frame to the lungs." It is not proved that an influence descends along the nerve (although it may be); but it is proved that an influence ascends; for if the nerve be cut, the animal is suffocated: the same effect is produced as if all the nerves supplying the muscles of respiration were at once divided. But still these muscles are not deprived of action; the animal struggles with them as muscles, acting in the capacity of voluntary muscles; but by the division of the laryngo-pulmo-gastric, (as the par vagum is called by Mr. Bell,) there is lost that connexion which bound them to the function of the lungs, and that union which made them act together in respiration. I must not, at the same time, forget that Mr. Bell shows, that all their nerves are in the perfect animal connected with the spinal marrow, through the medium of the sympathetic, by the ganglions formed on the fibres arising from the posterior column: a set of ganglions, which, having been forgotten by Bichat, are fatal to his theory of the individuality of the ganglionic system.

We know that if we cut the phrenic the diaphragm will cease to act. We know, by Legallois' experiments, that by cutting the recurrent of the par vagum, the actions of the muscles of the glottis will cease; and there can be little doubt, if the superior respiratory was cut, that the muscles of the shoulder would not act in respiration; if the external respiratory, that there would be no longer a consent between the external and internal muscles of respiration. Had Mr. Legallois taken this view of the anatomy, he would have satisfactorily shown, why all attempts at respiration ceased on the destruction of the spinal marrow; because by this he not only cut off the origin of the par vagum, but the roots of

the nerves belonging to the external system of respiration; and this cut across the connexions between the lungs and the external organs of respiration.

Considering the view of anatomy, as far as I understand it from Mr. Bell's lectures, I am convinced that the deductions which Legallois, Mr. Brodie, and Dr. Philip, have drawn from their experiments, are all completely erroneous, in consequence of their not having proceeded upon a correct view of the minute anatomy of the nerves: a conclusion which I am forced to draw from the manner in which their experiments are related; for, how can we have any confidence in those experimentalists who detail their researches upon vomiting, respiration, and circulation, without taking all these nerves into account?

If we recollect the different states into which all the muscles of the upper part of the body are thrown, in the various actions in which the lungs partake, as in vomiting, coughing, speaking, sneezing, yawning, &c. we can then understand why there should be such a combination of nerves, and how impossible it is to draw any just conclusions from such partial views as those gentlemen have taken.

I must express my suspicion, that any experiments on the functions of the viscera, founded on the idea of cutting off their nervous energy, will not succeed in the hands of those gentlemen, who, in their experiments on the heart, lungs, and stomach, seem to have forgotten that each part has its own peculiar nervous energy within it, and which no dissection can separate from it.

Accordingly, the parts, when cut out, will each exhibit, according to its nature, its own peculiar activity.

In proof of this, Mr. Bell has shown us, that if we remove a muscle of a limb from the body, it will, when irritated, contract quickly and spasmodically. If we excite the intestines, they will not act immediately, but a vermicular motion is seen slowly to arise, and to continue for some time; and if the heart be stimulated, it will contract and dilate alternately, and those alternate actions will continue for some time.

Each of those parts will be most excited by that kind of irritation which is most analogous to its natural stimulus; thus, after the heart has ceased to answer every other excitement, it will again act, if its cavities be expanded with air or fluid.

When we are shown this, how little importance must we attach to those experiments of Mr. Brodie on the action of the heart, detailed in Dr. Cooke's book, or to the experiments where he thinks to destroy the nervous energy of a

limb by cutting through the axillary plexus! Such an experiment only shows, that the connexion with the rest of the machine is cut off, but that those actions still continue which are peculiar to its component parts.

Mr. Bell illustrates the true value of each nerve by comparative anatomy; for he shows us that there are classes of animals whose nervous system appears dispersed, the several parts not being combined by nerves; but as we gradually ascend the scale, we have more distinct organs, then a more distinct brain, and at the same time nerves of combination. If we have lungs and stomach, then we have a par vagum; but if the animal breathes by the whole surface of the body, then, though we may have a stomach perfect in every respect, yet we have no par vagum.

I have been tempted, even at the hazard of mistaking Mr. Bell's opinions, to transmit this very loose sketch, which I have drawn up from memory. I trust, however, it will be sufficient to show that a theory very different from the one which now prevails on the use of certain nerves, may be formed from the observation of comparative anatomy; and perhaps this may in the mean time prevent the repetition of useless and cruel experiments.

IV.

On Roseola. By C. B. ROSE, Surgeon, Swaffham, Norfolk.

It is said by Dr. Bateman, in his Synopsis of Cutaneous Diseases, that "the efflorescence to which Dr. Willan appropriated the title of roseola is of little importance in a practical view; for it is mostly symptomatic, occurring in connexion with different febrile complaints, and requiring no deviation from the treatment respectively adapted to them;" and he appears to have given a particular description of it, only because it is necessary "that Practitioners should be acquainted with its appearances, in order to avoid the error of confounding it with the idiopathic exanthemata*." This statement, unfortunately, is not applicable to all cases of roseola, three cases having fallen under my notice, of which, the first terminated *fatally*; the second, although it never excited alarm, was attended with a very considerable degree of constitutional irritation; and the third, (more particularly the subject of this paper,) occurring after vaccination, was

* Practical Synopsis of Cutaneous Diseases. Fifth Edition, p. 96.

accompanied with symptoms that could not be viewed without fear and trembling for the result. Also, in the last Volume of the REPOSITORY, a fatal case is recorded, which likewise supervened to vaccine inoculation. On referring to my notes of the first case, I find that it occurred in a child, nine months old, very fat and healthy. The inflammation originated at the margin of a burn, situated on the inner side of the arm just above the elbow, which had been inflicted a few days before; it was superficial; a shilling would have covered its extent; and it was nearly healed: from thence the disease extended itself over the trunk and extremities; the head and neck only remaining unaffected by it. It was attended with great febrile excitement; and on the fourth day the child died, with every symptom of abdominal inflammation. The case was treated with purgatives and antimonial; and a cold evaporating lotion was applied to the inflammation, whilst it was *confined to the arm*, but *afterwards*, internal medicines only were administered.

The second case appeared in a patient very much attenuated and debilitated by a tuberculated mamma in a state of ulceration. During eighteen months it recurred at intervals of six or eight weeks, always commencing at the margin of the sore, and then extending itself to the integuments covering the sternum, clavicle, and shoulder, sometimes to the middle of the back, abdomen, and down the arm to the elbow of the same side. It was of a bright red colour, becoming of a damask red in a few hours; felt excessively hot; and the parts considerably thickened, hard, and exquisitely tender: the ulcer also partook of the erethism. When the inflammation subsided, the parts appeared as if they had been bruised. These attacks were sometimes ushered in by a severe rigor, and always accompanied with a bilious vomiting, anorexia, and considerable febrile action. They were invariably repelled in four or five days, by applying a spirituous lotion cold to the parts affected, giving a brisk calomel purge, and afterwards a powder every four hours, composed of nitrate of potash and Dover's powder. If they were attended with much pain or restlessness, I gave five grains or more of the latter for a dose.

The last case strikingly resembled the one communicated by Dr. Lucas, except in severity and termination. I shall now proceed to relate it.

November 30, 1819. — I vaccinated the son of Mr. K., a fine healthy babe, ten weeks old, from a genuine vesicle on a child equally healthy. I made a puncture on each arm: both took place, and advanced regularly to the full-formed

vesicle on the eighth day; on which day I opened carefully, with a lancet, the vesicle on the right arm, and charged several vaccinators.

9th day.—The areola had commenced forming, and was about the size of a sixpence on each arm: no perceptible difference between them.

10th day.—I was prevented from seeing the child. The parents sent to request my calling, in consequence of the redness having extended, on the *right* arm, to the elbow and shoulder; and nearly around the arm. I had not an opportunity of visiting the child until the next morning.

11th day.—I found him exceedingly fretful; hot; his pulse *very rapid*; countenance much distressed; and, indeed, evidently seriously ill; suffering under great constitutional irritation. The arm from which I had taken the ichor was inflamed from the tip of the shoulder to very near the elbow, and nearly around it: the parts beyond the usual limits of an areola did not partake of the specific hardness of the latter; the cutis only felt somewhat thicker. There was an extreme heat in the inflamed parts, and their colour was a dark red. The child had refused his food, but not the breast; his bowels were rather confined; and he had not passed so much urine as usual. I immediately gave him the following purgative:—

R Hydrargyri Submur. gr. j.

Pulv. Jalapæ, gr. ij. M. ft. pulv.

And I desired the attendants to keep soft linen to the inflamed parts, constantly wet and cold with the saturnine lotion. At nine P. M. I again saw the child. The inflammation of the parts *below* the vesicle had very much subsided; but it was more fierce, yet dark coloured, at the back part of the shoulder, and brighter upon the anterior part of the shoulder; it had not yet extended to the trunk. The child was more quiet, but complained sadly when moved, or when the affected parts were touched; they appeared to be exquisitely tender. The purgative had produced four alvine dejections, slimy, and of a green colour. He still refused his food, but took the breast very well. The areola on the *left* arm was large, but had no unusual aspect. I gave him an anodyne powder, composed of Dover's powder, half a grain, carbonate of magnesia, two grains; and changed the saturnine lotion for the following, requesting they would keep the parts constantly moist and cold with it:—

R Liquor. Ammon. Acet. ℥j.

Spirit. rectificati, ℥ss.

Mist. Camphoræ, ℥ijss. M. ft. lotio.

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12th day. — At ten A. M. I visited my little patient: he had experienced a very good night; had made a usual quantity of urine, but had not passed any fæces: there was less distress visible in his countenance; and he was not hot. The inflammation was now nearly gone from the shoulder and upper part of the arm, except at the anterior boundary of the arm-pit, where an irregular spot was still of a bright red. The most angry spot to-day was situated directly upon the elbow, extending over the whole back part of that joint; the colour dark, with great heat. I repeated the purging powder; and desired the nurse to continue the use of the lotion, and not to suffer the parts to become warm. Nine P. M. He had two natural motions about noon; in consequence of which, the purgative was not given till four in the afternoon: he has this evening had four green and slimy evacuations, and made water very well. He has to-day been rather brisker than yesterday, sucked very well, and taken a small pipkin of food. He has lain more quiet, and certainly complains less when he is moved. He is not hot, but looks pale and ill. The bright spot at the anterior edge of the arm-pit continues, but does not increase in magnitude: the redness at the elbow is extended to the fore-arm, and more around the joint; the colour dark: the parts above the vesicle had been again brighter in the latter part of the afternoon; exciting apprehensions of its spreading in that direction, and so on to the body, but it had subsided again completely: the true areola was also gone. I ordered the following powder to be given him at ten o'clock, and to be repeated every six hours: —

R Potassæ Nitratis,
 Sacchari purificati, ā ā. gr. ij.
 Pulv. Ipecac. Comp. gr. ss.
 Pulv. Antimonialis, gr. ʒ. M. ft. pulv.

13th day. — The child looked considerably better this morning; the purgative had operated upon him three or four times during the night; the evacuations similar to the last. He has taken food better, and sucked as usual. The inflammation has subsided on the upper arm and elbow, the parts looking as if they had been bruised: the spot at the edge of the axilla has also vanished; but the inflammation, although less intense, is evidently advancing towards the wrist. At five P. M. I saw him again: he has been merry all day; but the inflammation on the fore-arm is dilated and vivid, extending around the arm. The child is again looking more pale and ill. I begged the nurse would attentively apply the cold lotion, and continue the use of the saline powders.

14th day. — The child had a restless night; they thought he was griped; but he looked better in the face this morning; his countenance all along has been a faithful index of the state of the disorder; his hands are cool, and pulse but little accelerated. The inflammation continues in the arm, and has approached nearer the wrist; it is now again but trifling; the changes in it are frequent, it being for a few hours bright and intense, and then again suddenly subsiding; still appears very unwilling to take a final leave. As the child had not had a motion since last evening, I repeated the purgative. I also desired that they would unremittingly persist in the use of the cold lotion.

15th day. — The child is no longer ill; the fever is quite gone; his bowels were briskly acted upon in the night by the purging powder; the evacuations still green: he has had two lax stools this morning, which were yellow, and more natural. There is still inflammation on the fore-arm towards the wrist, but it is dull. In the evening there was only a narrow circle of the roseola around the wrist, which was vivid. He is to continue using the lotion, but requires no more of the saline powders.

16th day. — My little patient remains convalescent; he has had a good night, without any anodyne; his bowels are regular. The inflammatory circle is narrower, and has not extended to the hand: where it had been so violent about the elbow and upper arm, the cuticle is desquamating; other parts are of a greenish yellow cast, as if they had been bruised, undoubtedly from extravasation, the consequence of the violent action of the minute arteries.

17th day. — The little boy continues to do well: there are a few small spots only of inflammation to be seen about the wrist; it has never extended to the hand. I desired that the lotion should be used whilst a spot of roseola remained.

18th day. — The child is very well; his bowels are regular; there are two small spots remaining still.

20th day. — No vestige of inflammation; the parts are desquamating. The constitutional disturbance in this case, although the inflammation was confined to the arm, was so considerable, that had the cutaneous affection extended over a much larger surface, the child would most probably have fallen a victim to it. It is also very probable that it would have terminated as the case first related, and as Dr. Lucas's. Had not two fatal cases of roseola been now recorded, the severity of symptoms evinced in the above case would alone show us how necessary it is carefully to watch the progress of this disease, and not to consider it

an affection of "little importance in a practical view." Seeing how lightly Drs. Willan and Bateman have treated this subject, I am induced thus to call the attention of medical Practitioners to it, to counteract the ill consequences of not knowing that it is not always harmless; — evils increased in a direct ratio with the respectability of the quarters from whence the information emanates. There is not the shadow of a doubt, that the little patient of the case first described in this paper, and that of the one communicated by Dr. Lucas, died from the same cause: yet, although the fatal symptoms were precisely similar in both cases, I cannot conclude with the Doctor, "that it is probable" the attack of internal inflammation "commenced with the first attack of fever." I cannot think that the symptoms described warrant such a conclusion; for surely, if inflammation had existed within the abdomen from the first attack of fever, the abdomen would have become tumefied, and tense also, much earlier than the seventeenth day. The child continuing to suck freely, and to take gruel at intervals until the seventeenth day; and on that day the sickness and tumefaction of the abdomen beginning, afford additional reasons for fixing that day as about the period when the abdominal inflammation arose. Taking then these circumstances into consideration, they produce in my mind a conviction that it was a true metastasis of disease. The probability of such a metastasis taking place, is in proportion to the intensity and extent of the disease on the surface. No one, I imagine, will dispute this point, who considers the great sympathetic connexion between the skin and the abdominal viscera. Who is there that has not seen the secretions of those viscera inordinately excited by an extensive but superficial burn or scald? Again, is not the skin daily displaying its morbid sympathy, by throwing out urticaria when noxious matter is irritating the alimentary canal? But these occurrences are too familiar to require to be particularized. The diseases of the skin and abdominal viscera alternating, from reasons very obvious, strongly favours the probability that these cases terminated in a metastasis, rather than that the enteritis and roseola co-existed from the first. Indeed Dr. Bateman has noticed the tendency to recede to the alimentary canal in some of the species of roseola; and most likely it exists in all, the probability of its occurrence being increased by an irritable habit of body, or the presence of inflammatory diathesis.

It is worthy of notice, that in Dr. Lucas's case, and also in mine, of roseola vaccina, the efflorescence originated on the arm in which the vesicle had been punctured: and

although in both cases the punctures were made with the utmost care, still there is little doubt that the process for taking the virus was the exciting cause of the subsequent inflammation. I am inclined to think that it was not the puncturing that did the mischief, but the pressure with the vaccinators, glass, or thread. In my case I wanted as much ichor as I could get; and the charging of several vaccinators, I dare say, excited considerable irritation.

The cases instruct us how necessary it is to use extreme tenderness when taking ichor; for we cannot, *a priori*, tell in whom roseola may arise, and when excited, where or how it will terminate. As I am on the subject of roseola, I cannot refrain from noticing the brevity with which Dr. Bateman has given its generic character. Whatever degree of brevity may be requisite in a synoptical history, it certainly ought not to be adopted so as to prevent the forming a ready diagnosis. There is no small degree of resemblance between roseola and erythema, as they are at present characterized in the synopsis of cutaneous diseases; and it strikes me something more is wanted to enable us to distinguish one disease from the other. To the generic character of roseola, as given by the Doctor, I recommend the addition of—its tendency to spread itself over an extensive surface, by enlarging its original limits in one direction, whilst it subsides in the opposite; and its frequent changes in the twenty-four hours, by fading, and then becoming vivid again.

I have in this paper described two cases, which were excited by causes not mentioned in the work above referred to. That originating in the burn, in its after symptoms and particular features, answered fully to the description of roseola vaccina; and that occurring in the lady with diseased breast partook of the symptoms and appearances of the roseola æstiva, except that it always first appeared at the margin of the ulcerated breast, thus resembling the vaccina in the local irritation being the exciting cause. It also sometimes happens that an efflorescence arises around the navel of newborn children, and extends itself over the abdomen and inferior extremities, having a striking resemblance to the vaccina, of which I have seen a fatal case. It appears, upon reviewing the above cases, that in certain peculiar states of the constitution, a local irritation only is wanted to excite the efflorescence roseola: in one case it has been a burn, in another a malignant ulcer, and in a third the separation of the funis. To these sources of irritation may be added an injured vaccine vesicle, and the eruptive process variola. Now if each particular exciting cause were to be considered a specific character, in my humble opinion,

we should be making distinctions where no real difference of disease existed; and as there is a remarkable affinity between the effect produced by each particular exciting cause, with all due deference to Dr. Bateman, I propose, they (the effects) should constitute one species only, including variola and vaccina, designating it *diffundens*, as denoting its most prominent character, and nominating its varieties according to their particular causes.

I perhaps may be accused of having adopted too much brevity in the strictures I have here offered on the specific division of this genus of cutaneous disease; but rather than occupy unnecessarily more valuable space in the pages of the REPOSITORY, I shall content myself with recommending, in conjunction with the above remarks, the perusal of the description of roseola in Dr. Bateman's invaluable Synopsis; a work, I am sure, every Practitioner would possess, was he aware how much it facilitated the study of cutaneous pathology.

V.

On the Reduction of Old Dislocations of the Shoulder Joint.

By JAMES PRICE, Surgeon and Medical Electrician,
Henrietta Street, Covent Garden.

WE have been favoured with the following letter from Mr. Davies, who wishes to give it publicity, as he thinks it will be attended with advantage, as a hint to prevent the too hasty conclusion, that the dislocation of the shoulder joint may not be reduced from an unusual length of time which may elapse before it is submitted to be operated upon.

The writer, whilst in the army, in New Brunswick, North America, had, in the following instance, an opportunity of trying that plan for the reduction of a dislocation upon the same principle in which he has been, we understand, so very successful in the cure of contractions and distortions, as he is also in the medical and surgical application of electricity.

" I conceive that the circumstance I am going to communicate will not only prove interesting, but may be of essential service to those who may be unfortunate in having a shoulder dislocated, as it proves, that even at so distant a period as thirteen weeks, such dislocation may be reduced. Perhaps you will say that such a case will never occur in this country, where every village abounds with medical men; but such even may occur, particularly in the country, either from the neglect of the medical attendant, or, what is more

probable, from the neglect of the person suffering, who, from penurious or other motives, may think it unnecessary to apply to a competent person for relief, until he has submitted to a number of specifics for bruises, under the kind treatment of a descendant of Vulcan, who frequently has the superintendence of surgical as well as veterinary cases. Dislocation of the shoulder joint, as you are well aware, is a more frequent occurrence than any other. From the circumstance of the glenoid cavity of the scapula being so shallow, and the joint consequently loose and moveable, the most trifling accident, in appearance, may effect a dislocation, and the person be ignorant of the circumstance, attributing his want of power to bring his hand to his head to the bruise he has sustained. John Hazen, a fine lad about fourteen years of age, was travelling with considerable velocity in a sledge on the ice of St. John's River, in New Brunswick, to the garrison town where I was stationed with my regiment. The sledge was accidentally overturned; in the fall the os brachii was dislocated downward. He went to the medical gentleman who usually attended his family, on his arrival, who stated subsequently that he reduced the dislocations. After this was effected, he returned home, a distance of eleven miles. What were the instructions he received from his medical attendant, I am not aware; but after the lapse of seven weeks, Mr. H. sent to inform him (the weather being so extremely cold, thermometer ranging between 30° and 35° below zero), the joint was so stiff that it was immovable. The messenger received a liniment, the use of which was persevered in for ten or twelve days; but as there was no amendment, Mr. H. was induced to visit his medical attendant, who examined his arm, and put on a strengthening plaster. As there was still no amendment, at the expiration of another fortnight, it was deemed advisable to take him to another Surgeon, who examined his arm, and finding it dislocated, he stated, as so long a time had elapsed, nothing could be done for him. However, as it was a distressing case that so young a lad should lose the use of an arm, he brought him to consult me, when I stated that I should treat him upon the principle I had been successful with in the cure of contractions, by persevering daily in gradual extension of the muscular fibre, which I have so very generally found answer my most sanguine expectations. I therefore proposed that he should be placed in pullies in the usual way, and extension made daily for ten, fifteen, or twenty minutes, the force increased from time to time, as it could be borne by the patient. Continued friction was used during

the extension, with a small quantity of olive oil in the palm of the hand. After this had been persevered in for a few days, I attempted to reduce the dislocation by placing my knee in the axilla as a fulcrum, and using the bone as a lever; persevering in this mode of treatment daily until the fifteenth day, when I happily succeeded in reducing the dislocation effectually."

VI.

Case of Poisoning by the Oxy muriate of Mercury, in an Extract of a Letter to Dr. DICKSON from JOHN MORTIMER, Esq., Surgeon, in Torrington.

THE following is an extract of a letter from Mr. Mortimer, an able Practitioner in Torrington, and late Surgeon of the Naval Hospital at Barbadoes:—

"While upon this subject I will trespass on your patience for a few minutes, to detail the successful treatment of a fine boy, under two years of age, who was poisoned by a solution of the oxy muriate of mercury, destined, with the addition of some oatmeal, for the destruction of rats.

"Those who have witnessed the horrible tortures consequent on the administration of this corrosive poison, will best judge of the joy I felt in rescuing from pain and death so interesting a child.

"About two P. M. on the 11th inst. this little fellow scrambled up to the bed-chamber, and swallowing the contents of a saucer (which were, as before noticed, a solution of corrosive sublimate mixed with oatmeal, for the destruction of rats), immediately returned below, vomiting incessantly, and exhibiting an appearance of great distress. Being from home at the time the messenger arrived, I did not see the little sufferer (distant eight miles) until eight in the evening. During the six hours that had elapsed, small quantities of oil had been assiduously given, with the view of defending the primæ viæ. The child's distress was very great; the vomiting was incessant; the pulse was hurried; the skin rather cold; and the thirst excessive. Having dissolved one drachm of the sulphuret of potass in three pints of tepid water, and sweetened it with sugar, I presented some of this solution, which he drank with avidity, but soon rejected it. The whites of a dozen of eggs were beat up, and administered alternately with the solution above named. In the hour, during which I remained, one half of the sulphuret of potass and all the whites of eggs were taken; and in addition to

these remedial measures, injections of soap and water were directed to be thrown up frequently.

"At four P. M. on the following day I visited my patient again; and you may imagine the pleasure I felt on being told that the child was better, and that the stomach had regained its retentive power, the vomiting having ceased during the night. The whole face, however, was bloated, as if anasarca, only extremely red; the stools were green; micturition frequent and in small quantities; but the thirst was much less considerable. On quitting him the preceding night, I had directed the whites of eggs to be given without limitation as to number; and happily for the child, the thirst had been so urgent, that, besides three quarts of tepid water, including the solution of the sulphuret of potass, the whites of sixty-seven eggs had been swallowed. The injections were ordered to be continued; and on the third day the child was free from fever and other symptoms of indisposition.

"To the professional man such a case presents little of novelty; and yet perhaps it is worthy of publicity, since it assists in showing the conservative influence of the above remedies in a situation the most agonizing to the fond parents, and involving in the issue all they held most dear. Further, it may be observed, that until the publication of M. Orfila's treatise on Poisons (a work which should be possessed by every professional man), the several antidotes to the previously too invariably fatal poisons were much less understood: and when we reflect on the rapid progress to disorganization and death, generally consequent on the administration of corrosive sublimate and verdigris, or any salt of copper, a knowledge of the fact that the whites of eggs are the most appropriate remedies till the arrival of the medical gentleman, cannot be unimportant, or too generally diffused. Two drachms and a half of the sulphuretum potassæ were given in the three days of my attendance."

VII.

A Fatal Instance of Laceration of the Vagina during Labour; with Passage of the Child and Placenta into the Abdominal Cavity. By J. INGLEBY, Surgeon, Temple Row, Birmingham.

THE wife of Joseph Turner, of Handsworth, near Birmingham, aged thirty-one, forms the subject of this case. Labour pains of the third and present pregnancy commenced in a

brisk manner, with very short intervals, about three o'clock A. M. on Wednesday, the 6th of October, 1819. Between five and six o'clock the membranes ruptured; and at seven the medical attendant arrived. He found the business making such progress, that he anticipated its conclusion would not be protracted beyond twenty minutes or half an hour. The uterine actions increased in violence during the whole forenoon, attended with bearing pains. The child, however, did not advance; and at two o'clock P. M. the patient experienced equally as severe a pain as any of the foregoing: but from this moment no uterine pain whatever returned. She observed that she felt as if the last pain had *torn her inside*. The quantity of sanguineous discharge did not exceed a teacupful during the whole process; and this supervened upon the cessation of uterine pain. Urgent vomiting, accompanied by pain in the epigastric region, instantly succeeded this sudden cessation of uterine action, and continued, without much intermission, up to the moment of her death. Various medicines, unnecessary to be specified, were, at times, administered by the Practitioner in attendance. The above symptoms, conjoined with general exhaustion and a wretched countenance; each hour assumed a more alarming appearance; yet the friends were led to understand, not only by the ordinary Practitioner, but also by an elderly gentleman whom he called into consultation, that the woman was free from danger, and that a return of pains might be expected in due time. The ordinary attendant, impressed with this opinion, left his patient about ten o'clock on the Friday morning, and did not see her again, in consequence of another Practitioner, Mr. Kenwick, junior, of West Bromwich, having been called in to undertake the serious responsibility of this case. It is but just, however, to remark, that the former medical attendant assured me it was his determination to have delivered her on the evening of this day. Mr. Kenwick tells me, that the gastric pain and vomiting were extremely urgent, every thing received into the stomach being immediately rejected, mixed with a dark coloured secretion, resembling weak coffee. The pulse was rapid; countenance deathly; tongue brown; sickness distressing; and the lips covered with black sordes. The presentation of the child was natural, and the head had descended pretty low in the pelvis, which was well formed. The discharges from the vagina were dark coloured and highly offensive; and four pints of urine were drawn off by the catheter. Mr. Kenwick, having apprized the woman's friends of her danger, directed a cordial mixture, and proposed to see her again the same

evening; at which time, he found the closing scene rapidly approaching. As the head was too high for the successful application of the forceps, and the perforating instruments were not at hand, and as he was, moreover, desirous that some other individual should co-operate with him, my immediate attendance was requested. On my arrival at the patient's dwelling, I learnt that she had expired half an hour before. From the length of time the child's head had been fixed in the pelvis, the chances of its being alive, even before the mother's death, were very feeble; and it was now evidently too late to contemplate the propriety of performing the Cæsarean section.

Sectio Cadaveris.

Although the cause of death could not admit of a reasonable doubt, yet it was, on several accounts, desirable to inspect the body. This was done at eleven o'clock the following morning, thirteen hours after death, in the presence of Mr. Grainger, Mr. Jukes, and Mr. Kenwick. A large quantity of matter, in colour and consistence resembling pitch, was exuding from the mouth and nostrils. The uterine tumour was almost as natural as in common cases; and nothing unusual was felt by placing the hand on the abdomen. As soon as I had fully exposed this cavity, a large quantity (between two and three quarts) of black coloured and dreadfully offensive fluid matter escaped. It did not possess the character of blood. The child was seen in the abdominal cavity, lying over the intestines, its breech and back opposed to the parietes of the mother's abdomen. This accounted for our being unable to feel the limbs through the integuments. The placenta was also in the belly. The general peritonæum was not at all inflamed; but the intestines exhibited a highly vascular appearance. As the uterus presented no apparent rupture, it was removed, together with the vagina, from the body. The former organ was discovered in a perfectly healthy and naturally contracted state, certainly not larger than is ordinary for some days after delivery; and the part to which the placenta had been affixed was very distinct. The uterine appendages were also natural. The vagina was lacerated, in an irregular and shaggy manner, at the superior part of the canal, almost immediately at its junction with the os internum, but more inclined to the left side. Through this rent, the greater part of the child and placenta had, of course, escaped into the belly. The stomach was quite healthy and pale coloured.

Observations.— Much might be said upon this case; but

my remarks will be very limited. The very sudden cessation of the uterine, succeeded by gastric pain, vomiting, and the other symptoms of exhaustion, bespoke some mischief to have taken place. The sudden sanguineous discharge, passed on the first day, doubtless succeeded the exit of the placenta from the uterus; but the absence of hæmorrhage is not unusual in ruptures of the uterus, and is as deceptive as the non-recession of the child's head when it has descended low in the pelvis. In the case related by Dr. Ross, and referred to in Mr. Burns' excellent treatise, "although the child escaped through a rent in the vagina into the cavity of the abdomen, and though the nature of the case was ascertained, yet no hæmorrhage, fainting, or bad symptoms, took place; and the child being delivered, the woman recovered." I take it for granted that delivery in this case was effected immediately, as the child's presence amongst the bowels must otherwise have occasioned great visceral irritation. From the structure and functions of the vagina, it would appear that, when ruptured, sloughing or mortification would be more likely to ensue after delivery than peritonitis; and there is no substantial reason to doubt Nature's competency in repairing the breach of surface, especially when the integrity of the bladder, as in the present instance, remained perfect.

VIII.

An Extraordinary Case of Hydrocephalus. By ANDREW HALLIDAY, St. James's Palace.

JACOB KÜHSOCK, son of Jacob and Giske Kühsock, of the parish of Moorsom, hundred of Westen, near Neinburg, in the kingdom of Hanover, aged eleven years and six months, was this day, January 12, 1819, brought to me that I might examine the head.

When eight months old the head began to enlarge, and from that period it has continued gradually to increase in size. On measuring, I found that the circumference above the ears, and in a line with the eye-brows, was *thirty-five inches*. Taking the measure which hat makers generally do, it was *thirty-eight inches*; and a string that passed over the crown of the head and met under the chin, measured *thirty-nine*. From the point of the chin to the highest part of the forehead it measured *nineteen inches*; while the whole length of the body, that is, from the point of the toes to the highest part of the forehead, was only *thirty-six*. The bones of the lower extremities were bent and twisted

in every direction, presenting, at the same time, a remarkable case of rachitis as well as of hydrocephalus. The upper extremities were equally bent, even the bones of the fingers.

About two years ago, according to the mother's account, the fluid within the cranium made its way into the ball of the right eye, which, from the accumulation of pressure, burst. For some months there was a constant watery discharge from the socket, and during that period the head did not increase in size. The aperture by which this fluid was discharged is now closed up, evidently by a small finger excrescence. The vision of the left eye is still perfect, though, from the alteration which has taken place in the relative situation of the parts, it is considerably misplaced, and has an unnatural appearance. The child hears perfectly, and rather acutely, and enjoys the senses of smell and taste, but has never been able to articulate distinctly. It understands perfectly what is said to it, and is understood in its expressions by its mother. The teeth have all disappeared. The functions are said to be natural, and the appetite very voracious. The mother assured me that *it never slept*, or if it did, it was for such short intervals, as to be scarcely perceptible. The father, who is a millwright by trade, has made a box for it, with a case for the head, in which it is carried about the country to obtain charity. It is in general quiet and tranquil; but the mother says it suffers severely at times, and that its cries are most distressing. Upon feeling the head, I observed that the frontal and occipital bones were connected by a bony ridge or arch, about two inches in breadth, but that on each side of this ridge there was a space six inches in length, and *four* in breadth, perfectly soft, and where there was evidently nothing but the integuments between the hand and the contained fluid. Query.—Is there in this case actual destruction of the brain's substance?

DEPARTMENT OF NATURAL HISTORY, &c.

Calendar of Flora and Fauna, kept at Hartfield, near Tunbridge Wells. By Dr. T. FORSTER. *From the 15th of April to the 6th of May, 1820.*

April 15th. — *Primula elatior* in flower at Hartwell: the Van Thol Tulips and other garden plants are rather earlier here than in Essex.

16th. — *Cardamine hirsuta* and *Orchis mascula* in flower. A straggling Swallow seen at Hartfield.

17th. — *Narcissus elatior*, *N. bicolor*, and *N. calathinus* in flower at Hale End, besides several double varieties. *Narcissus Tazetta*, both the yellow and white sorts, now in flower in the open ground.

18th. — *Vinca minor* in bloom every where.

19th. — *Cardamine pratensis* and *Stellaria Holostea* in flower, but the latter is very scanty yet, and only out on a warm bank at Hartwell.

20th. — *Doronicum Pardalianches*, *Fritillaria imperialis*, three varieties, and many varieties of Daffodils, *Narcissus*, and Hyacinths, in flower in the garden at Hartwell. *Orchis mascula* in the fields,

Riding to-day through part of Surry, Kent, and Sussex, I could not help noticing how rapidly the spring has advanced within a few days. Daisies, Pilewort, Perriwinkles, Dandelions, Violets, Heartseases, Wood Anemones, Cowslips, and Primroses, are now very abundant, and adorn the banks and thickets in profusion every where. The Wry Neck (*Jynx torquilla*) has been arrived some days; and I have already heard the Willow Wren, (*Ficedula salicium*) and the Stone Curlew (*Fedoa CEdicnemus*).

21st. — *Anemone hortensis*, the Garden Anemone, in blow.

22d. — The Swallow again seen: this bird is, however, of rare occurrence as yet. The great Leopard's Bane in full flower. The Fruit Trees are now in bloom; and the foliage advances faster than it did last year.

23d. — *Scilla nutans*, *Ranunculus auricomus*, and the Alehoof (*Glechoma hederacea*) in flower to-day. The Wood Anemone is abundantly in flower in the woods. Wallflowers begin to be common; and the *Oxalis Acetosella* is very numerous.

24th. — *Cardamine amara*, and *Ranunculus bulbosus* in flower. I saw, to-day, for the first time, several Swallows, (*H. rustica*), but stragglers have been seen so early as the 16th instant. Weather dry, with N. E. wind.

25th. — The *Gentiana acaulis*, or Junckanella, as the country folks call it, flowered to-day. The cottage gardens in this neighbourhood are ornamented now with Stocks, Wallflowers, and Anemones. The Garden Ranunculi are also in bloom.

26th. — *Chærophyllum sylvestre* in flower. Swallows fly low, denoting rain.

27th. — Cold, showery, cloudy day, with northerly wind. *Tulipa Gesneriana*, (the variety called the Golden Eagle,) just in blow.

29th. — Narcissi, Crown Imperials, and Daffodils, still in flower, though much faded.

30th. — *Leucopjum astivum* in flower. A Swift (*Hirundo apus*) seen at Walthamstow.

May 1st. — *Veronica chamædrys* in flower. Fair day, but the temperature low.

2d. — *Erysimum Alliaria* abundantly in flower. The Swallow (*Hirundo rustica*) is become pretty common. A solar halo this morning.

3d. — *Senecio squalidus* and *Narcissus poeticus* in flower. The Martin (*Hirundo urbica*) first seen, by me, to-day. This evening the abundance of cirrocumulus and wanecloud indicates rain. The weather is very cold.

4th. — *Geranium molle* in flower.

6th. — I saw Trout, Perch, Bleak, and Roach, caught to-day in the stream. The day was cloudy and cold, with south wind, followed by rain and gales at night.

[This Journal is to be continued in the neighbourhood of Tunbridge Wells.]

PART II.

ANALYTICAL REVIEW.

I.

An Inquiry into Dr. GALL's System concerning Innate Dispositions, the Physiology of the Brain, and Materialism, Fatalism, and Moral Liberty, &c. &c. By J. P. TUPPER, M.D., &c. &c. London, 1819. 8vo. pp. 190.

OUR orthodoxy, it will have been observed, has been called in question. We insert, therefore, the present article, by way of showing our colours; and we beg leave to say, that as long as we believe that truth is on our side, no selfish interestedness, no cannonade of satire, ridicule, or contempt, shall make us strike them: we nail them to the mast.

Of this book we had not intended further notice, from an idea that the moral complexion of the subject and object of the author rendered it more adapted to the criticisms of general literature than to a niche in a work on medical science. But we are called upon to unfurl once more our banners; and, as this performance originated in the productions of some of our own brethren, as in some parts it treats directly of matters connected with medical philosophy, and in none of subjects alien from the interests of

medical men, we resolve to devote a short space, and a little time, to its contents. And we are the more incited, fearful lest an undue importance has been attached to the influence which the *actual* state of the sharp controversy on materialism has upon moral questions. We do not say *actual* state, from any belief that this state admits a variation; for we are strongly inclined to think, that towards a decision in favour of either party, neither physics in general, nor physiology in particular, will ever bring more testimony than is now adduced, or, indeed, than has been adduced for ages: yet we do say, that if to the *organic* hypothesis triumphant attestations were brought, the author, and all the friends of natural and revealed religion, would have cause of trepidation. Great authorities, even Locke, have maintained that in such a case neither morals nor religion need be sufferers. We presume to differ from such an opinion; and the more so, because a death-blow to these was the professed object of one of the greatest advocates the theory of organization can boast.

“ Quam multa tibi jam fingere possum
 Somnia, quæ vitæ rationes vertere possint,
 Fortunasque tuas omneis turbare timore?
 Et meritò: nam si certam finem esse viderent
 Ærumnarum homines, aliquâ ratione valerent
 Religionibus, atque minis obsistere vatum.”

It will, then, be conceded, that if such serious devastation would result from the victory of the organic physiologists, the real state of the controversy is invested with great interest to all our body, inasmuch as professing to be Doctors, we do not cease to be men. The question consequently arises, Has the organic hypothesis obtained the palm of conquest? And may we now feel at liberty to draw therefrom whatever theoretical, whatever *practical* deductions we may choose?

To this we reply:—The organists have *not* triumphed; and so far as the controversy is concerned, no argument can be adduced in favour of the slightest relaxation of moral or religious restrictions.

We are told that the advocates for a soul heterogeneous from body cannot demonstrate the verity of their creed—cannot exhibit the said soul—cannot, indeed, show any thing in the animal frame, beside bone, muscle, tendon, blood-vessel, nerve, &c.; and that they have no right, no philosophical right, to assume the existence of any thing, whose existence the *senses* have not verified.

It is true, that our senses cannot detect that which all contend is not an object of sense; but we must say, that

The doctrine which demands credence for nothing but what the senses perceive, whilst it is specious, and seemingly simple, cannot, in reality, claim a character of true philosophy, and is belied habitually by those who advance it. The concession of the being of a Deity illustrates this assertion. The awful splendours of that matchless subsistence no corporeal senses have perceived; but does he exist the less for an imperfection of the sensual organs? *He* is an instance of something which the senses have not detected, yet whose existence *must* be allowed. This solitary fact suffices to the demolition of that specious doctrine; for it is a rule subverted and annihilated even by one exception. If there be one thing in the universe not detegible by sense, but *demanding* acknowledgment from a constrained and convicted reason, who shall say there are not more; and who shall limit their number?

Again; if the testimony of the senses be deemed essential to every species of knowledge, strict philosophy requires this doctrine to be carried on to consequences destructive of all the information and credit, of all the deductions and habits of life and society. It strikes at the credibility of history, and even of cotemporary evidence. It invalidates the narrations of other days; and it reduces our faith from even living witnesses to the single and unsupported testimony of our own perceptions. This it does in *strictness* of philosophy, and by a legitimate process; for the senses of the whole human race are made up of the senses of individuals; and as to his own senses every man must give his first confidence, so, the further the senses of others are removed from his, whether by time or by space, the less proportionally will he credit them;—nay, he ought not to trust any senses besides his own; for certainly only in his own consciousness can he place a quite fearless and *perfect* reliance. But the abettors of this theory may reply to the first of the above arguments, that they will not concede the being even of a Deity, since of a Deity they have no sensual perceptions. And, truly, such a defence is the best they can adopt, since this alone is consistent. The consistent organist must carry his system, his denial of *insensible* subsistences, to the erasion, from this universe, of a Creator and Superintendent. He must contend, that design does not imply a designer, nor machinery a mechanist. He must plunge into the exploded, crushed, *absurd*, satirized system of Atheism and of Atoms. However, if he be loath to go these lengths, his concession of a God is not the only instance wherein himself belies his theory; for in these very animal bodies, which he so

stoutly asserts to contain nothing but matter, processes occur which are not the objects of sense; effects are produced, of which his perceptions do not teach him the agents. Truly, if he could demonstrate these, the controversy would be terminated: if he could show the brain imagining, reflecting, judging, he might instantly shout victory; but he cannot: with all his boasts of discrediting what he does not perceive, he hourly perceives what he cannot discredit, an effect whose process he has never seen, and whose operator he has never demonstrated.

We admire the artifice of representing the immaterialists, the believers in a soul, as a set of weak, shallow-pated, credulous fanatics, fit recipients of any knavish imposture; and their antagonists as a select band of cool, unprejudiced, inductive philosophers, when these very gentlemen have not a whit of induction, nor a point of demonstration more than the others. This brings us to the practical inferences from the controversy. We hope the reader will have already anticipated them, and will coincide with us, that theology and morals have nothing to dread from the litigations of physiologists. *Demonstration is wanting to each party*; and in the selection of our religious creed, and in the practice of morality, we must be guided by that kind and degree of evidence which satisfies our judgments in all the schemes and pursuits of human life. If one class of philosophers do not display to us that which, by their very doctrine, cannot be sensibly perceived, neither can the opposite prove that imperceptibility and non-existence are interchangeable terms — if, on the one hand, the soul cannot be handled, or heard, or seen; on the other, it cannot be proved to be “an airy nothing.” We are told, in a recent publication, that the soul must have its existence verified by other testimony than that of physiology. Truly it must: but this concession was made with such an air of conscious charitableness, as if to soften the blow which the previous physiological annihilation of the soul gave, that no immaterialist will deign to admit it. Truth is universal; and what is false in physics cannot be true in morals or metaphysics. When it is *proved* to us, that “medullary matter thinks,” it will be time to abjure our faith in natural and revealed religion. Till then, let us give to these subjects all that credence which their peculiar evidence solicits, which if the phenomena of nature do not confirm, it is certain they *do not invalidate or destroy*.

However, whilst we assert demonstration wanting both to the materialists and their antagonists, we do think one hypothesis approximates nearer to it than the other; that is to say, we think one invested with more probabilities by its

intrinsic evidence. We allude to the doctrines of the immaterialists; and we beg leave to say, that whilst we are not insensible to the force of the arguments founded upon a detailed comparison of the phenomena of mind with the allowed properties of matter, we are yet disposed to intrust the fate of our protégée to common sense and feeling, and to general observation; and certainly from these mankind have, with few exceptions, inferred the being of somewhat not material in the animal composition. And we do think with Burnet, that the consensus gentium universalis has some weight in argument. "*Vox enim naturæ, si rectè intelligatur, est index testisque veritatis.*" — *De Statu Mortuor.*

Again; we have never found the homogeneists—for this sect is called by a great many cramp names—we have never known them solve satisfactorily the difficulties suggested to our minds by the downright *opposition* of certain phenomena in our nature. The same substratum, can it, at the same time, be attracted involuntarily to the centre of the globe, and bounding spontaneously to the regions of heaven? Gravitation would sink us, like a plummet, to the bottom of a well; by volition we soar above the sun himself. We appeal to common feeling. Do we gravitate and will with the same substance? The attempted solution suffices not. Heat, it is said, lightning, light; who would, *à priori*, deem them of the same nature as granite, iron, lead? Heat, lightning, light, are not properties of matter, but *proved* to be themselves matter; and do we behold contrarieties in their operations? Heat contracting? light darkening? electricity refrigerating?

Another instance of the opposition of phenomena more unaccountable by homogeneity, is the repression and subjugation of the animal passions. Let us specify the sexual appetite. When this is vanquished by generosity, or a sentiment of honour, or a feeling of religious duty, are we to believe that the same substratum desires and vanquishes desire—wills and refuses pleasure at the same time? When Alexander spared a resistless captive, the fascinating wife of his enemy; when Scipio displayed a similar magnanimity, we say these great men exceeded their previous greatness; we say they conquered themselves. But the bare idea of victory implies the dual number—something to conquer, *and* something to be conquered. Will homogeneity solve these difficulties? and strikes it not at the root of moral probation, which implies a conflict?

The victory over pain has the same kind of bearing upon this question as the contempt of pleasure. Our animal portion shrinks from the sword, or the faggot, or the axe;

but some *opposing* principle sends us to the wars; mounts us on the funeral pile; leads us, calm, firm, dauntless, like Russell, to the scaffold.

To all this, and to much more that might, had we room, be adduced, we anticipate the hackneyed answer—"Our senses cannot show more than one substance in the animal body." We must concede it; nay, more, we willingly concede it. We are as eager to refer to the arbitration of the senses as our opponents; but the senses refuse to decide. *We* cannot exhibit a mind thinking, nor *they* a brain; and yet they ought to do so. All the properties of matter are discernible by sense: we feel figure and solidity, hear vibrations, smell effluvia, taste savours, see colours; but can we by one, or every sense, be informed of an idea? Can we smell or taste, hear, see, or feel a thought? Can we imagine marble, brass, adamant, to be fellow properties of the same substratum with judgment, imagination, taste?—a smith's anvil and the *Iliad* of Homer only results of fellow properties?

Ingenious and abstract arguments will ever be raked up to sophisticate simple feeling, and to disturb our common sense convictions: their power extends no further. In this mysterious system of things, true wisdom and philosophy are sometimes evinced by contentment with knowledge short of demonstration. Of essences we are totally ignorant; and the profoundest researches into science, whatever that science may be, are but the sportiveness of insects on the surface of a summer stream. For ourselves, we confess with Socrates, *we know nothing*; and yet we are not so restless as to "*burst with ignorance*." In the matter before us, we cannot imagine how, on the organic hypothesis, to solve the infinite variation of human intellect with so much sameness of brain, or the superiority of this to the brutal, with so much similarity of organs of sense. If the senses are to be, and if the senses *are* the only media of information and of mind, whence the abrupt termination of mind at the human species? We say *abrupt*, from no desire to cavil about the intellect of brute animals, which, if demanded, we would even concede to be the same in *kind* as the human; but because the most sagacious phenomena brutes have ever displayed, are not, for one moment, to be compared with the stupendous energies, the varied coruscations, the augmentable capacities of the intellect of man. We ask, why, if the senses are the grand and essential agents in the architecture of knowledge, we come to a dead stop at the monkey tribe; in whom, possessed of five organs of sense, as delicate and susceptible as the human, no more sagacity is discernible than in many other brutes, and *none* to be opposed to the

sublime faculties of our species? Let it be shown how, upon this hypothesis, the *genus simia* can boast, as its acme of civilization, a few mischievous or playful tricks, whilst the *genus homo* has attained to the precision of science, the utility of morals, the sublimity of religion, to splendour and effect in war, to taste and sentiment in poetry and painting, to axioms in philosophy, to justice and equity in legislature.

It is true, that in brute animals intelligence seems always proportional to organization; that their instincts and habits are adapted to their forms, the media wherein they respire, and the degrees of locomotion which their organs indicate and control: but this fact, so vaunted, so quoted, as decisive in favour of organism, to us appears to favour a different deduction. As we see the most intelligent brutes still, in this era of creation, limited to the same range of operations as in the remotest times; still giving their offspring the same education; still adopting the same architecture; still using the same modes of warfare in attack, and defence, and stratagem; we recognise a congruity, a harmony, betwixt their powers and their structure, which are not preserved in man.

But what are we writing? What has all this to do with Dr. Tupper, and his attack upon the craniological system of the German illuminati? Thus much: that this craniology, it seems to us, has been vaunted by its prominent and prime advocates in language of such a character, that we cannot but feel that they are, in point of fact, materialists with another name; that, at any rate, the organic sophists have hailed the system as corroboratory of their own; that certainly its tendency, unless maturely and comprehensively considered, is to teach materialism. The cerebral organs are, or are not, the cause, the efficient cause, of moral and mental character: if they be, then the craniologists are advocates of materialism; if they be not, we really do not apprehend the statements or the inferences of the learned Germans. Yet we will say, staunch immaterialists as we are, that the facts of this science, even could they be substantiated, do not in the least appal us. We do look upon the cerebral mass to be as much organic and *instrumental* as any other part of the frame. We see no reason why the mind should not imagine with one portion of brain, remember with another, and judge with a third, and so forth; and if that be the case, we see no reason why the portion chiefly exercised should not be developed beyond the remainder less in demand. The pugilist excels in vigour and muscularity of arm; the pedestrian in strength of loin, and thigh, and leg. Why should a law which obtains in other parts of the animal system be pretermitted in the brain?

But the general arguments above advanced against the

prima facie tendency of craniology are backed by many against its alleged facts. Whilst we deny that if these could be verified, the doctrine of the immaterialists would *really* suffer, we beg leave to assert, that they have not been verified; that partial, and isolated, and solitary facts have been made the basis of sweeping and general deductions; and that opposing and numerous facts, whereof one suffices to the demolition of the system, have been totally unnoticed. For our readers, if they agree with us that the craniological system is but a branch of the material hypothesis, (and we do not suspect that they will differ), will perceive, that in *all* cases, without one exception, if cerebral substance be the regulator, to use no stronger term, of mental or moral movements, there should exist a development of brain proportional to the energy of such movements. If this portion of brain, developed in a poet, be the cause of his brilliancy of imagination, every brilliant imagination should be marked by an adequate local enlargement. If there be another poet, possessed of equal or greater imagination, but of less local augmentation of brain, then cerebral development is not the cause, nay, is not the measure of mental power. This kind of argumentation is applicable to all the various organs which are mapped out by the craniologists. And now we will seriously interrogate Dr. Gall, or any of his disciples, whether their craniological laws allow any exception? whether they permit but one? whether in all cases of peculiar mental or moral complexion there has been found proportionate cerebral conformation? They will not assert this; they will not pretend that even the more glaring characteristics of memory, or judgment, or imagination, in the mental, of fortitude, or tenderness, or cruelty, or love, in the moral portion of the man, are invariably indicated *extrinsically*; much less that the finer shades of character can, by the most scientific and observant of their sect, be detected by the finger or the eye. Nay, further; they will not pretend, that in many an instance there has not been a total want of cerebral development, although the faculty that demanded its manifestation has flourished with vigour. Cerebral volume, therefore, cannot be the efficient cause of mental or moral energies; for cause and effect are *always* proportioned to each other. But we do not, say the craniologues, we do not say that it is the efficient cause, but simply the manifestator. Very good; if it be the manifestator only, in the sense in which a muscular arm manifests the habits of Crib, or a fleshy leg the powers of Barclay, we wish no heated controversy with the advocates of cranioscopy. But we still enforce our suspicions, that Messrs. Gall and followers intend something more than this kind of manifestation.

After all, if the doctrine were perfect; if it were totally and universally borne out by facts, without an exception; if always mind and morals and brain corresponded, the query, the troublesome query, would still obtrude itself—Which is cause, and which is consequence? Does cerebral arrangement generate mental? or does this produce the cerebral conformation? And an answer to these interrogatories, upon principles of physiology, must then and ultimately be based upon the common arguments; upon the comparison of the *allowed* properties of matter, as dense, as figured, as inert, with the unpalpable, undefined, active characteristics of that which is denominated mind.

From all that we have said, it will be inferred that we do not pretend to any definition of that substance which we suppose to be the subject of mental phenomena: of that substance we know nothing but its phenomena, but its properties. We perceive these properties to be totally discrepant from others, which we call the properties of matter; we argue, therefore, that discrepant, that *opposing* phenomena, are not the offspring of one and the same substratum. We hope this is logic: at any rate, we do not pretend to any other knowledge of the subject than logical reasoning may afford. We do not pretend that our senses have informed us even of matter, much less of mind; we do not arrogate any other acquaintance with mind or matter than that which their properties bestow; and we affirm these properties to be completely unlike, and completely hostile. But our antagonists are not possessed of this *ingenui pudoris*; they most confidently assert, that matter is the substratum and subject of both the species of phenomena, of figure, of colour, of density, of thought, and memory, and judgment. Let them demonstrate, and we are content: we have never boasted of sensible demonstration; we have ever considered the question as one of deduction; and we should feel preciously loath to intrust any of our important interests to the wisdom or discrimination of those men who do not perceive that the weight of testimony lies in the scale of a duality of existence. We would not intrust them with our temporal destinies; and may the Almighty forbid we should ever make them the arbiters of that fate, which involves the eternity of our woe or welfare!

[The board of review has intrusted the above discussion to one of its ablest contributors, and the article is presented without any editorial interference. We shall just add, that a paper on the same subject, by our Correspondent, Mr. FOSBROOKE, is intended for the next Number.—Ed.]

II.

Sound Mind; or, Contributions to the Natural History and Physiology of the Human Intellect. By JOHN HASLAM, M. D., late of Pembroke Hall, Cambridge. Longmans, 1819. 8vo.

THE patient toil of the anatomist has admirably unravelled the structure of the human frame; nor has less industry been exerted in unfolding the texture of the animal creation: the physiologist has instituted experiment, and exerted reason, to develop the economy of animated beings: and the analytic chemist has detected the composition and proportions of the different elements that compose this corporeal mass. The historian has recorded the achievements of our race; but his volume most abounds with the sanguinary conflicts of rival nations, or details the craft by which the multitude has been subjugated by the few. Sufficient, however, yet remains on the face of nature, both of edifice and dilapidations; enough has been preserved, in the mutilated relics of human art, to characterize the taste, the science, the ambition, and vengeance of our species. The means by which these stupendous monuments of intellectual energy have been effected have hitherto been less the subject of investigation than their importance has deserved. Man, in the exercise of his power, or in the tranquil enjoyment of his comforts, is little disposed to retrace the steps, the slow and painful paces, by which he has arrived at honour and emolument. The pampered inhabitant of a splendid mansion, where the luxuries of life seem to be spontaneously presented, seldom agitates his contented brain with speculations how the pile was erected; nor does he bestow a thought on the difficulties of procuring the produce he consumes: to possess, to will, and to enjoy, fill up the measure of his solicitude. Such has been the case with the human mind; and with these impressions the author has endeavoured to trace the progress and accumulation of intellect from infancy to manhood. It has been his main object to discover the circumstances which have contributed to the superiority of man above the rest of animated creation; and to point out, both from his physical structure and from the constitution of his intellect, wherein this pre-eminence consists. Dr. Haslam has been long known to the medical profession as a copious and powerful writer on the subject of insanity; and in the preface to the present performance he observes,

“ In treating of mental derangement, I became very early sensible, that a competent knowledge of the faculties and operations of the

intellect in its healthy state was indispensably necessary to him who professed to treat its disorders: that in order to define the aberrations, the standard should be fixed."

This is perfectly true; and the justness of the author's plan is as indisputable as its execution is difficult. For the medical Practitioner, and more especially for the Student, this work is intended, as it professes to treat the subject of mind as a branch of natural history and physiology: and the intimate alliance which subsists between the bodily and mental functions renders this species of knowledge indispensable to the whole of the medical Profession.

The present work, like the other productions of Dr. Haslam, is the statement of his own opinions and experience; and bears the stamp of originality and wide comprehension: but it must be recollected, that a system is not perfect in the ratio of its originality, nor beneficial in proportion to the extent of its grasp; and although novel in its structure, it must be fashioned of the same materials, that is, mental phenomena, which compose the discordant hypotheses of preceding writers.

We will now, as we formerly promised, endeavour to perform the task of exhibiting an outline of the author's system. The two first sections treat of perception and memory: but it will not be necessary to dwell on these, although some new views of these subjects are exhibited. The third section treats of "the intellectual superiority which man has acquired by speech and the possession of the hand." Anaxagoras is said to have considered the hand as a human attribute, and Helvetius has also entertained a similar opinion; but neither has contemplated the subject to the extent, nor developed the conclusions of our author. The hand is considered conjunctively with speech, and viewed as the recorder of significant sound. Animals are stationary; man progressive: the acquirements of the former perish with the individual; but man is differently and more highly endowed: he possesses, says our author, speech, whereby he can communicate his past and immediate perceptions; and his hand can record in intelligent and conventional characters the sum of his experience. As it is wholly impossible to abridge this section, owing to the compression that has been employed by the author, we must be contented with a few extracts to convey a glimpse of his meaning.

"Had man been merely furnished with speech, without the means of recording his acts and reflections, we might indeed have preserved, by tradition, the names of Homer, Virgil, Cicero, Shakespeare, and Milton; but their works, those majestic columns which now support the temple of fame, would have perished, had there not been a

contrivance to record the productions of their genius. This art of conferring permanence on the significant sounds of the human voice has taught us to revere the taste and wisdom of our predecessors; and to feel, that although their bodies are buried in peace, yet their names live for evermore: but more especially this contrivance has preserved the laws of nations; and, above all other blessings, has transmitted in the sacred volume the commandments of the living God."

In page 53 there is another passage, elucidating the importance of the hand, which we shall transcribe.

"We readily acknowledge, that he who is born blind can have no perception of visible objects, and that the same negation may be extended to the other senses when defective. Thus, if man had been created without hands, and consequently without the acute organ of touch, which resides in the extremities of these members, we must at least have been strangers to the 'cloud-capt towers, the gorgeous palaces, and the solemn temples' which he has reared. Had the upper extremities of the human body terminated at the wrist, such a man as Phidias might have existed, but his occupation would have been unknown. Thus truncated, how would the fleet have been constructed which reaped the laurel at the Nile, at Copenhagen, and Trafalgar? The eternal city could not have existed, nor would our own metropolis have had a being. If we reflect for an instant, we shall perceive that all the conveniences we enjoy, all the arts we practise, and the sciences which elevate and dignify our nature, could never have been realized in a handless community."

As the various sections of Dr. Haslam's System of the Human Mind have undergone such a high degree of compression; as the different parts bear a mutual reference and inseparable connexion with each other, analogous to a piece of complicated machinery, we must refer the reader to the work itself for its thorough comprehension. There is, however, a section allotted to thought or reflection, which is more capable of sustaining a separate examination; and on this subject we shall introduce a few remarks. There is no inquiry more natural and important than, *What is thought?* or, *What do we perform when we think?* The author properly insists that "every act of intellectual exertion, deliberately performed, is attended with consciousness." We must, therefore, be aware, when we think, of the nature and gradations of the process. Our thoughts or reflections can only consist of the perceptions we have experienced. Our thoughts on any subject must, therefore, consist of the knowledge we possess of such subject. Any thing beyond this would amount to inspiration. Man possesses a capacity of knowing again the perceptions he has experienced; and this capacity or faculty is common to the more intelligent

animals : but man is superiorly gifted ; he is enabled *voluntarily* to recollect the perceptions he has experienced ; and this capability, Dr. Haslam contends, is not possessed by animals. Supposing this concession to be made to the author, the next question is, How, or by what means, are human beings enabled voluntarily to recollect the perceptions they have experienced ? Have they supernumerary senses, or auxiliary faculties which are denied to animals ? The answer is, They are endowed with *speech*, by which the experienced perception is commuted for a term, and these terms or language constitute the circulating medium of our thoughts. We are of opinion that, in reference to these particulars, the conclusions, and indeed the premises of our able author, are rather too gratuitous. We cannot here go into the question of difference as to kind and degree in the manifestations of human or brute capacity—a question to which allusion has been made in the preceding article, and which, in some measure, is logomachical : nor will it be at all consistent with our intention or limits to discuss the very difficult point of voluntariness in reference to its prime or *ab origine* excitation ; but we shall just intimate, by way of qualifying the data of Dr. Haslam, that the voluntary recollection of previous perceptions may, for any thing we know to the contrary, be enjoyed to a certain extent by the inferior animals ; indeed, under any other theory, they would, even in the highest classes, be merely creatures of sensation, and destitute of *any* recollection whatever but that excited by the actual presence of former objects of cognition. That this is not the case, is evidenced by the fact of animals for some time lamenting the loss of their young, and, indeed, by many other manifestations. These intellectual displays are, if you please, feeble and transitory, when compared with human power ; but when one class of existences, animate or inanimate, is separated from another by any *essential* peculiarity, it is, we hardly need say, absolutely necessary to prove the entire non-existence of the distinguishing quality in one of them. And, with respect to speech, Dr. H. has fallen, as it appears to us, into the error of constituting it the exciting cause of that faculty which his other positions assume originates spontaneously, or without any exterior source. We are disposed to think, indeed, (with deference) that throughout the whole of these speculations respecting the human understanding and faculties, our author proves himself rather too much influenced in his reasonings and inferences by a partiality to the *epæ pteroenta* positions and principles.

Again ; if articulate sounds are, as it were, the vinculum of

voluntarily, and if this last power thus distinguishes the man from the mere animal, the dumb among our own species must be consigned to rank among the inferior order of living existences, and we should be compelled to the humiliating reflection, that we owe our superiority over the baboon merely to the integrity of our auditory and laryngeal nerves: in fine, the laws by which our thoughts succeed each other, *and the power which the will acquires in regulating this succession*, still demand an ample and severe investigation; and we hope that on some future occasion the author may be induced to concentrate his energetic mind to the elucidation of these important desiderata. Throughout the whole of this perspicuous but abbreviated performance, Dr. Haslam has been most anxious to demonstrate from natural reason the immortality of man; and he has adduced the most cogent arguments from his superior structure and endowments for his future destination.

There is a leading feature in this system, concerning the doctrine of numbers, the comprehension of which is presumed to be the exclusive province of the human intellect; and this species of knowledge is considered as the basis of that noble faculty which is denominated reason, of which a copious and accurate analysis succeeds to the chapter on reflection. Independently of its original views, this system of the human intellect is wholly exempt from those equivocal and sweeping terms which usually constitute the building materials of scholastic metaphysics; so that it becomes intelligible to the generality of readers. We shall only add, that Dr. H. is, to our taste, rather too partial to the etymological philosophy of the celebrated Horne Tooke, whose *verbal* system, if we may be allowed so to name it, is confessedly very ingenious, but the whole scope of which has always appeared, to our conceptions, tinctured with the common but fatal error of registering effect as cause, and cause as effect.

III.

A Treatise on the Adulterations of Food and Culinary Poisons.
By FREDRICK ACCUM. London, 1820. 12mo. pp. 362.

IN the good old times of our ancestors, it was (and even yet in some small villages or insulated houses, far remote from those high roads, which, by their facilitating the intercourse of the most distant parts of the kingdom, have so greatly assimilated the manners and opinions of country residents

to those of the inhabitants of the metropolis, it is) the usual employment of winter evenings, when the family assembled around the blazing fire, for some maiden aunt, some gossiping nurse, or tattling dairy maid, to relate a number of wonderful stories of ghosts and goblins, until their auditors became afraid of their own shadows, or of the sound of their own respiration, and remained nearly in a state of inanition, to which they were reduced by their fears. Yet this state of suspended animation, for so it must be called, seems to have been attended with pleasurable feelings; for we know that the audience on succeeding evenings returned to their accustomed tales with delight, until the feelings of fear again overpowered and absorbed the whole of their faculties. But, as we have said, the scepticism of the metropolis has spread over the country, and, in consequence, these fearful pleasures are at an end. Of late, also, in consequence of the general distress, induced by the great efforts of the country to maintain the order of things in Europe on their old footing, having reached the medical Profession, a spirit of legislation has seized some of its members, and a vain hope has been cherished, that by the Profession submitting to self-imposed fetters the distress may be alleviated—a spirit fostered by others who hope to profit by it. And both these parties have joined in a great outcry respecting poisons, and frauds in drugs, &c. in order to further their own ends, at a time when improved mental acquirements and superior civilization have rendered that crime, or even accidents arising from poisons, less frequent than ever; when our sovereigns, notwithstanding the general prevalence of republican opinions, no longer require the gentlemen of their chamber, or the maids of honour to kneel by their sides, to take assay, as it was called, of every dish they intend to eat, by eating the first slice or spoonful, as was done even in the golden days of good Queen Bess.

Mr. Accum, laying hold of this artificial state of excitement in which the public mind is kept at present—an excitement which has succeeded to the apprehensions occasioned by the belief in ghosts, and in other delusions of former days—has carried the visionary terrors to excess; indeed, so far as to render the matter truly ridiculous. But to review his book more particularly.

The poisoning of water by keeping it in leaden cisterns, or pumping it from wells by leaden pumps, is the first object; and the result of his long tirade on this subject is, that some waters which contain an extraordinary quantity of carbonic acid gas act upon the lead, and acquire insalubrious qualities;

but these waters are rare, the impregnation obvious, and, of course, easily guarded against.

Poisoned beer affords Mr. Accum an excellent opportunity to exercise his talent in the manufacture of books. Here we were obliged, in order to execute our duty, to doze over long lists of brewers, who have been convicted of the dire crime of having hartshorn shavings, Spanish liquorice, carui seeds, and such like *poisonous* substances, in their possession. The only suspicious articles which we can discover in these dreadful tales of the empoisoning of beer, are, *cocculus Indicus*, and *nux vomica*: but the author carefully avoids any mention of the medicinal powers of these active fruits; the latter of which is, as is well known to our readers, one of the most powerful remedies we possess in paralytic and similar affections: and may not a small quantity of the drugs, at the same time that they increase the apparent strength of the beer, render it more wholesome, at least to some persons, than when they are omitted? It appears, from our old historians of London, that all the great outlets of the town were formerly occupied by rows of bedridden or paralytic persons, exposed at the windows of the ground-floors, to receive the charity of the persons who were walking out of town for pleasure. May not, then, the present rarer occurrence of palsy be ascribed to the medicinal effect of these supposed poisons? And as to their intoxicating power, if people will drink to excess, it matters little with what drug intoxication is produced.

Poisoned wine is, of course, a fruitful subject for the author: but nothing new is said, nor any tales related but those of mere accident, or occasional impregnations arising from ignorance. From the importance of the subject, and the ease with which the impregnation of wine with lead may be discovered by a practical Chemist, it might have been expected that Mr. Accum, to justify his charges against the retailers of wine, would have given the results of his experiments to show the great prevalence of this empoisonment. In the absence of this proof, the lovers of wine have no more reason to be afraid of taking their accustomed exhilarating glass, lest they should swallow death therein, than they have to abstain from walking in the streets, because a tile blown down from some roof, or scared country-bred horse, may by accident terminate their existence at once. It does not appear that, admitting occasional adulteration of wine with sugar of lead, the quantity exceeds a quarter of a grain per glass; and here, as usual, Mr. Accum totally omits the medical qualities of small doses of this article, and the vital power of the animal frame to accommodate itself gradually to circumstances of constant occurrence.

As to bread, the author gives an account of the method of making London bread, in which there are, on an average, from eight to twelve grains of alum in a quartern loaf. As this is in most families the weekly allowance of each person, the assumption of little more than a grain of alum per day does not seem likely to do much, if any, mischief to the constitution: and the whole outcry against the bakers for using this salt is, in reality, "much ado about nothing." Indeed Mr. Accum himself, although so alive to every thing that can be called a poison, considers the admixture of one bushel of mashed potatoes along with five of wheat flour to be the crying sin of the London bakers.

Counterfeit tea is said to be coloured by carbonate of copper, not verdigris or copperas, as is generally asserted. The carbonate being emetic when taken in a sufficient and very small dose, the quantity added to the tea, or rather sloe leaves, must be very minute indeed. Now, as Mr. A. says he has examined twenty-seven specimens of imitation tea, it certainly behoved him to inform those who pay him for his book what proportion of carbonate of copper he found in them, or at least the average; but we suspect that this information would have shown the futility of his declamations.

Counterfeit, or more properly British, coffee, is merely a patriotic attempt to use the produce of our own soil, instead of that of the West Indies or Arabia. Its flavour may not be so good, but it is equally wholesome; and the article appears totally misplaced in a book which bears as its epigraph, a death's head and marrow-bones, with the dreadful inscription, "There is death in the pot." Here we have fresh lists of the poor grocers who have felt the severity of the revenue laws.

That we may be afraid of every thing we eat and drink in common, spirituous liquors are declared to be *sometimes* impregnated with sulphate of lead, or verdigris; to have a false strength given them by capsicum, or other acrid vegetables, and (which we believe to be the most common fault) to be lowered with water. It does not appear, however, the impregnation with sulphate of lead, if true, (for Mr. Accum gives nothing like experimental certainty on the subject,) is ever such as to be feared.

Poisonous cheese. — Reader. Carefully avoid cheese that has a reddish cast, for occasionally it is coloured with arnotto; this arnotto is occasionally adulterated with vermilion; and this vermilion is occasionally adulterated with red lead; and thus occasionally you may have the belly-ache after eating it,

especially if you are in the habit of occasionally making a hearty supper of toasted cheese.

We pass over adulterated pepper, and proceed to pickles, which are sometimes greened by copper. Now, copper is not, like lead, an insidious drug; the action of the former is violent, and the stomach immediately takes alarm at its presence in the system, and exerts its utmost efforts to eject the enemy. At the same time, the colouring power of copper is very great; a very minute quantity will give a deep colour either to acid or alkaline solvents. And the practice of colouring pickles only shows, when properly viewed, that the quantity of copper required to give a fair green colour to pickles is less than that which will act upon the human stomach; for it is evident, that no emetic or even nauseating quality would be allowable in pickles, or any article of food: and we have no proof that copper, as an alterative only, is anywise injurious.

Poisonous confectionary is perhaps the only real subject of complaint on which Mr. Accum's pen is employed. We suspect many of the coloured articles of this sort to be deleterious; but they are very little used, and almost every mother of a family knows already the danger, cautions her children from eating them, and generally consigns them to the fire or the dust hole.

As to poisonous catsup, here an occasional circumstance is magnified into one of constant occurrence; and the same is the case with poisonous custard. Once on a time, an ignorant cook put too many cherry laurel-leaves into a custard, and for this the whole tribe of cooks, and mistresses of families, are to be abused, and our palates are to be deprived of the grateful flavour thus communicated, lest the same accident may happen again.

We have not patience to follow Mr. Accum through his chapters on poisonous anchovy sauce, the adulteration of lozenges, poisonous olive oil, adulterated mustard, (on which subject, however, we must remark, that genuine mustard is so bitter, so oily, and turns black in so short a space of time, that it is universally decried whenever it is accidentally met with); adulterated lemon acid; poisonous mushrooms, an article we eagerly examined to find the characters by which the wholesome species may be distinguished from the poisonous ones, but were disappointed*; and lastly, food poisoned by copper or leaden vessels. In all these chapters

* We are promised a communication on this interesting subject, which we shall seize an early opportunity of giving to our readers.

we have, as in the preceding dolorous tales of accidents which have occurred, extracted from newspapers, and other equally authentic sources of information, much general assertion respecting the adulteration of these articles with poisonous drugs; but here, as we have already hinted in respect to imitation tea, we miss that information which it certainly behoved Mr. Accum, in his profession of operative and analytic chemist, to have given the public, namely, a strict chemical examination of the articles thus asserted to be rendered deleterious by the frauds of the manufacturers and dealers in them; not empty, and we may say, impudent declamations, involving the characters of most respectable men, charging, as it were, the whole of human kind, (for who is not in some degree involved in the preparation of food or drink?) as being in a conspiracy to poison their companions, as would be the case if he were to make good his assertions. Fortunately, the absurdity of many of his charges are so manifest, that they can delude only the wretched hypochondriac, who sits in his chair brooding over ideal miseries;—and to what purpose? Is every one who intends to purchase a loaf of bread, or open a bottle of wine, to have an operative chemist at his elbow, or to study chemistry, and purchase one of Mr. Accum's chests of chemical tests to examine them himself? A late Lord Chief Justice, referring to the now frequent appearance of surveyors in the courts of law to give evidence respecting the due execution of works ordered, said, he should not be surprised to find, in a few years, surveyors produced in courts to give evidence upon the due fitting and sewing of a pair of small-clothes; and if Mr. Accum's assertions should sway the public mind, surveyors of articles of food will become necessary. If the establishment of this corps is not the object of Mr. Accum's work, it is difficult to say what is its object, unless it be, as we said at the commencement, his desire to replace the heart-appalling tales of ghosts, by somewhat similar tales of another description, now that Mr. Beresford's once famous "Miseries of Human Life" is covered with the shades of oblivion.

IV.

A Treatise on Nervous Diseases. By JOHN COOKE, M.D.;
&c. &c. Vol. I. on Apoplexy.

LET them who deride the notion of uncertainty and conjecture as at all applicable to medical science, who conceive that want of satisfaction ever argues a want of perception, and

that demonstration cannot fail to follow research, when inquiry is properly pursued, think of the phenomena of apoplexy, and be convinced of their error.

Under this sweeping denomination are included a variety of morbid states, both as to degree and kind; and we have often the same *measure* of disorder induced while the proximate cause, as pathologists express themselves, of its induction is widely and essentially different; and even when the actual circumstances of the encephalic derangement are precisely the same in two individuals, who shall be the subject of an apoplectic attack, the prior and general condition of the brain and body may have been so dissimilar, that the curative indications in the one and the other instance, to be correct, must be at variance.

To collect into one mass the various observations and conjectures of Physicians on a disorder so multifarious in its sources and circumstances, is to confer a benefit on our science; and Dr. Cooke, for thus recording the experience and opinions of ancients and moderns in this perplexing department of pathology, deserves, as we have before intimated, the thanks of the Profession. Labours like these are especially valuable in the present day, now that medical literature is comparatively so much neglected, even by Practitioners who do not follow their calling as a craft, or attach a mere *tare and tret* value to professional pursuits.

The volume before us contains, in the first place, a very able and interesting summary of all that has been thought and said from the earliest times on "the nature and use of the nervous system." Of this part of the book we have already presented our readers with a pretty copious analysis*.

Having gone over this preliminary matter, Dr. C. proceeds to the more immediate consideration of apoplexy, treating first of its definition and history; secondly, of dissections and *post mortem* appearances; thirdly, of the cause of the disease; fourthly, of proposed distinctions as to species; fifthly, of diagnosis and prognosis; and, sixthly, of the treatment: and we have then two additional chapters; the one on lethargy, coma, carus, cataphora, &c., the other on apoplexia hydrocephalica, or hydrocephalus internus.

As far as our limits will allow, we shall now aim at concentrating these already concentrated particulars.

"The term apoplexy (from ἀποπλῆσσω, *percutio*,) was employed by the Greeks, and is still used, to denote a disease in which the patient falls to the ground, often suddenly, and lies without sense or

* See REPOSITORY, Vol. XIII. p. 118.

voluntary motion. Persons instantaneously thus affected, as if struck by lightning, were by the ancients denominated *ἰμπερνητοί*, *attoniti, siderati.*"

Hippocrates, Galen, Aretæus, Paulus Ægineta, Ætius, and others, all give pretty much the same accounts of the disease, as to its essential characteristics; as, indeed, does Alexander Trallianus; the last author without any where expressly using the term apoplexy: while in the writings of the moderns we find the disease defined in different ways. Sauvages and Linnæus denominate it a profound sleep, with stertorous respiration. Cullen's definition runs thus: "Apoplexy is a disease in which the whole of the external and internal senses and voluntary motions are in some degree abolished, while respiration and the action of the heart continue the same." Dr. Young states apoplexy to be formed by "a suspension of the powers of sense and motion, more or less perfect, with an appearance of sleep, the motion of the heart remaining uninterrupted." Mr. Good makes the disorder to consist in "mental and corporeal torpidity, with stertorous sleep;" while Faustus and Portal are of opinion that there may be apoplexy without stertor. Dr. Cooke himself says,

"Perhaps apoplexy may be thus defined: it is a disease in which the animal functions are suspended, while the vital and natural functions continue; respiration being generally laborious, and frequently attended with stertor."

With respect to its history, while the attacks of the complaint are sometimes sudden, at other times we are warned of its occurrence by many symptoms indicative of want of integrity in the functions of the brain.

"In the perfect or strong apoplexy, the respiration of the patient is generally much impeded; but, although laborious, it is often, in the beginning of the paroxysm, slow and regular; in the middle, and towards the end, *when the disease terminates fatally*, it becomes frequent, weak, and irregular."

Galen considers the disease fearful in proportion to the degree in which the breathing is injured. Dr. Cheyne is of the same opinion. Drs. Kirkland, Boerhaave, Portal, and the author of the present volume, dwell particularly on *stertor*, as characterizing strength and malignity in apoplexy; and almost all authors agree in pointing out the circumstance of saliva issuing from the mouth to be indicative of the highest danger.

The pulse is usually described as slow and full in the first place, and subsequently irregular, frequent, and weak.

Bullinus and Zulianus, however, have observed, that although the disease may be very strong, the pulse, from its commencement to the finale, is often very weak. Fever is marked by some as frequently an attendant symptom of apoplexy, but Dr. Cooke has found it seldom to accompany the disease. A dilated pupil is noticed by authors; but the contraction of the pupil, which sometimes takes place, is not alluded to, except by Aretæus among the ancients, and Dr. Cheyne among the moderns. The teeth are often closed, and deglutition is impeded; but the secretions (says Dr. Cooke) are seldom much altered.

The duration of the fit is various. Sudden deaths are generally owing either to some affection of the heart, or the rupture of some blood-vessel larger than those of the brain. *Genuine* apoplexy, he says, seldom destroys life in less than two hours.

"The paroxysm generally lasts from eight to twelve, twenty-four, or forty-eight hours; sometimes for a longer period. Forestus relates the case of a woman seized with an apoplexy, which he calls *fortissima*, who lay in the fit for three days, and afterwards gradually recovered."

"The *strong* apoplexy almost always ends in death."

When hemiplegia, which is so constantly an effect of this disease, takes place, it is usually, but not invariably, on the side opposite to the part of the brain immediately implicated in the production of the fit.

Dissections.—The principal morbid appearances found after death from apoplexy, are "blood, serum, pus, hydatids, tumours of different kinds, organic lesions, polypous concretions, ossification, and exostoses. The blood is found between the membranes, on the surface of the brain, about its basis, or among its convolutions. It is sometimes of its natural colour and consistence, sometimes mixed with serum, and sometimes dark, grumous, and concreted.

Bonetus, Morgagni, Lieutaud, Portal, and Cheyne, are the principal authorities referred to by Dr. Cooke for *post mortem* appearances. The first speaks of grumous blood in the carotid arteries, under the dura mater, on the basis and surface of the brain, as well as in the ventricles and substance; of effusion of serum, and of "pituitous humour occupying the beginning of the spinal marrow." He also describes various distinct lesions, such as rupture of the carotid, tumours, polypous concretions, and hydatids. Bonetus also describes morbid appearances in other parts of the body, as the heart, the lungs, the liver. In these cases, when the brain has been found not in a morbid state, Dr. Cooke

questions the propriety of the disorder which produced death being registered under the head of apoplexy.

Morgagni is very copious in his account of morbid appearances found after apoplexy. He particularly talks of lesions of the corpora striata, the plexus choroides, the septum lucidum, the pineal gland, the parietes of the ventricles, and the medullary substance of the brain.

He likewise, in his histories of dissections after apoplexy, describes ossifications, polypous concretions, hydatids, &c. in the brain, and various morbid conditions of the other viscera, thoracic and abdominal. Lieutaud also describes similar and other appearances; and he cites in particular three instances of blood found in the cerebellum; and one case he relates of turgid and varicose blood-vessels, without any stagnation of blood: but the propriety of applying the term apoplexy to this case, Dr. Cooke says, may be doubted. M. Portal, besides describing the several appearances, both in the brain and other parts, after death from apoplexy, remarks, respecting apoplectic subjects, that their bodies preserve their heat for a long time after death. He alludes particularly to ossification, both in the encephalic and other large blood-vessels, as connected with apoplectic productions.

Dr. Cheyne dwells especially on the appearances which indicate "the remains of an excited state of the minute arteries of the brain and its membranes," the consequent extravasation of blood, the turgescence of the venous system, the enlargement of the ventricles, and serous effusion.

Having given this list of *post mortem* appearances, Dr. Cooke adds,

"There are, however, several cases on record, in which, on examination of the head after this disease, nothing morbid or uncommon has been found. Sir Gilbert Blane accounts for this, by supposing that the inquiries made in such cases were not sufficiently minute."

It has, however, recently fallen to our lot to witness the dissection of some cases of apoplectic and other brainular affections, in which the most accurate and minute inspection by no means corresponded with *à priori* expectations; and this, we believe, will often be the case with those individuals who do not commence the process of research with a determination that death shall rectify their notions of the case during life.

Had we happened to pen the analysis about which we are now engaged one day sooner, we should have expressed surprise that Dr. Cooke had made such little allusion to

what the continental Physicians are at this moment doing in the way of pathological investigation, in reference to the disease under discussion. On this very day, however, (May 19th), we have had the pleasure of hearing Dr. Cooke lecture before the College of Physicians on the subject of palsy; and in this division of his subject he has, we find, taken notice of the investigations to which we refer. These lectures, or the substance of them, will form part of Dr. C.'s second volume, the appearance of which may, in no long time, be expected, and which will complete his treatise on nervous diseases.

At the end of this chapter on dissection, our author slightly alludes to the slender descriptions which have been given by Portal, Goodwyn, and Curry, of the appearances after death in animals that have been suffocated or drowned. M. Portal says, that when persons die, from suffocation, or are poisoned by narcotics, there is a greater or less sanguineous fulness of the brain. He adds, however, that this is not always the case; the vessels of the brain sometimes not containing more blood than ordinary, and there being no other notable alteration, whether after mephitism, carus, apoplexy from gas, or narcotics. Neither Goodwyn nor Curry admit that drowning produces death in any measure through the medium of apoplexy.

Causes.—Hereditary disposition, advanced age, sudden vicissitudes of temperature, plethoric habit, indulgence in eating and drinking, and, according to some, a leucophlegmatic, pituitous, or dropsical temperament, all predispose to the disease. The exciting causes are, according to our author, to be inferred from the appearances on dissection; and he believes, that “in the strong *sudden* apoplexy, attended with stertorous breathing, the exciting cause is almost always an effusion of blood; and in those cases in which the disease comes on gradually, with symptoms warning us of its approach, he states it to be his opinion, that either blood is poured out from a small vessel, or serum is gradually effused. “In either case,” he says, “if the effusion goes on, the full apoplexy may be produced; but it is difficult to conceive how serum should be effused so quickly as to produce the *sudden* decease.” Dr. Abercrombie’s objections to the notion of determination of blood to the head as a source of apoplexy, Dr. C. thinks may be overruled by referring to passions of the mind, and other sudden impulses of the brain, as excitative of the disease. Intoxication, although sometimes productive of rupture or effusion, and therefore of true apoplexy, may sometimes, we are told, occasion a temporary disorder, by occasioning a mere vascular fulness and dis-

tention. Both cold and heat, although for the most part constituting mere circumstances of predisposition, may, when intense or applied under particular conditions, prove exciting causes of apoplexy. Tight ligatures about the neck may give occasion to the disease, by obstructing the returning blood through the jugular: and from a case related by Fothergill, of a person being seized with apoplexy while turning his head to look behind him, Dr. C. thinks it unsafe for persons of an apoplectic make and disposition thus to turn their heads, without at the same time moving the whole body*.

In this place Dr. Cooke refers to the theory of Dr. Abercrombie, respecting the want of balance, or due relation between the arterial and venous systems, as being the cause of apoplexy; but he neither advocates nor opposes Dr. A.'s postulata. Narcotics, or noxious gases, seem, for the most part, to occasion death by destroying the functions of the brain, without directly acting on the circulation, and by interfering with the respiratory process. Sometimes, however, as well in these cases as in hanging and drowning, an apoplectic congestion, and even effusion, is induced. Dr. C. slightly refers to apoplexy as induced occasionally by other diseases, especially gout, and by the suppression, natural or artificial, of accustomed evacuations.

The immediate or proximate cause of the affection is generally allowed to be "an obstruction of the passage of the nervous fluid into the organs of sense and motion."

Dr. C. is indisposed to admit the distinction of apoplexy into sanguineous and serous; at least, he says, "we must allow that the serous apoplexy very seldom occurs;" and he adds, "I am of opinion, that even in very old persons of leucophlegmatic habits, pale countenance, small pulse, and other marks of serous apoplexy, *if the disease came on suddenly*, it ought to be considered as probably arising from an effusion of blood within the cranium."

We must confess that we should have been gratified in

* The actual position of the head is not perhaps sufficiently attended to after the apoplectic paroxysm has been induced. We were, a few nights since, struck with the propriety of a suggestion made by Mr. Wray, of Fleet Street, in the Medical Society, viz. that it is not sufficient merely to order the head to be raised in apoplexy, but that such position of the neck ought to be observed as should occasion the least interference with the *foramina lacera basis cranii*, at which point the internal jugular veins commence from the termination of the lateral sinuses. It is, we understand, Mr. W.'s intention to pass a ligature round the internal jugular of an animal of the monkey tribe, in order to ascertain whether the consequent obstruction to the returning blood will be productive of the true apoplectic state. — REV.

finding a further discussion than Dr. C. engages in, respecting the condition of the brain prior to and promotive of the actual induction of the fit. Dr. C. does not allow of spasmodic, convulsive, or *nervous* apoplexy.

Diagnosis.—From epilepsy apoplexy is distinguishable by the paroxysm of the latter lasting longer, and not being accompanied with convulsion; from syncope and asphyxia, by the pulse and respiration, instead of being diminished or suspended, being stronger and fuller than natural; from mere intoxication, by the want of vinous odour in the breath.

The *prognosis* in apoplexy must, in a very great proportion of cases, be unfavourable; but Dr. C. does not agree with those authors who think considerable effusions on the brain to be necessarily fatal. "I am informed (he says) by Dr. Baillie, Mr. Astley Cooper, Mr. Wilson, and other professional friends, that in many cases where persons had recovered from apoplexy, evident marks of effusion of blood have a long time afterwards been found in the brain." "Mr. Cooper (he adds) has favoured me with a communication on the subject, in which he says: 'The dissections which I have made of cases of apoplexy, and extravasations of blood upon the brain, from accident, have led me to the belief that the effused blood never becomes absorbed, but that the brain gradually acquires the power of bearing its pressure, and that thus the symptoms, which are produced at the first moment of general extravasation, gradually diminish.'" This statement of Mr. C. is, we may just observe, in some measure at variance with the recent observations made by the French physiologists on the subject of the apoplectic *cyst*, a full account of which has been given by Dr. Palmer, in some late Numbers of the REPOSITORY. But to return to the prognosis in apoplexy:—In proportion to the suddenness of the attack is (*ceteris paribus*) the degree of danger. Stertorous, and impeded, and intermittent breathing, are always dangerous symptoms. Foaming at the mouth is one of the worst signs. "When the pulse, from having been slow, strong, and full, becomes quick, weak, and intermittent, especially in conjunction with other unfavourable signs, we may conclude that the disease will soon terminate fatally.

The dilated pupil is generally marked down by authors as one of the worst signs; but Dr. C. thinks that the *contracted* pupil is a still more dangerous symptom. His opinion on this head is confirmed by that of Sir Gilbert Blane and Dr. Temple.

Cold, and profuse, and partial sweats are very unfavourable: on the contrary, warm, gentle, and general perspirations are favourable. Hæmorrhages and the accession of piles are good omens. Whether the coming on of fever is to be

regarded a good symptom is doubtful. Portal says that the supervening of convulsions is not always an indication of fatality; on the contrary, they sometimes, he says, announce a diminution of the cause of the evil.

If the fit of strong apoplexy last half a day, it almost always terminates in death.

[We must defer the consideration of the treatment of apoplexy, and the other topics discussed in this volume, to the next Number.]

PART III.

SELECTIONS.

Observations on the Theory which ascribes Secretion to the Agency of Nerves. By W. P. ALISON, M.D., F.R.S.E., &c., Professor of Medical Jurisprudence and Medical Police in the University of Edinburgh.

[From the Quarterly Journal of Science.]

THE importance of Dr. Wilson Philip's Experimental Inquiry into the Laws of the Vital Functions must be obvious to all who study, with the attention it deserves, his refutation of the theory of Le Gallois, concerning the connexion of the nervous system, in the living body, with muscular action, contained in a work which the French National Institute characterized as "certainly the most important which has appeared in physiology since the learned experiments of Haller," and the doctrines of which that learned body, somewhat hastily, sanctioned and adopted.

The most prevalent opinion in the schools of medicine, in regard to the connexion of the nervous system with muscular action, has been, that the muscles derive from the nerves, not merely occasions of irritation, but supplies of irritability, in the shape of nervous influence or energy. And the difference between the two sets of muscles has been referred by some to the different parts of the nervous system from which their respective portions of energy have been conceived to be derived. Thus Willis and Boerhaave derived the energy of the voluntary muscles from the brain, and of the involuntary from the cerebellum; Whytt and Cullen, that of both from the brain generally; Bichat, that of the former

from the brain, and that of the latter from the ganglia of the sympathetic nerve; Le Gallois, that of the former set of muscles from the nerves immediately supplying them, and that of the latter from the spinal marrow; and, in some late French physiological works, reference is made to an opinion of Reil, which may, perhaps, be considered as the last hold of the doctrine of nervous energy, namely; that all muscles derive their irritability from the coats of the nerves immediately supplying them.

These opinions have led to much false reasoning in regard to the nature of various diseases; and therefore it is of the utmost importance to medical science, that we should be in possession of facts illustrating the true nature of the connexion between the nervous system and the different muscular actions which constitute so important a part of all the functions of the living body. The experiments and observations of Dr. Wilson Philip on this subject, agree perfectly with those recorded by Haller, in his *Elements of Physiology*, and in his long controversy with Dr. Whytt, and appear to place beyond all doubt the general correctness of the doctrines which he taught in this fundamental department of physiology.

The following may be stated as the most important propositions which these physiologists have established.

“ 1. That the power of the muscles, both of voluntary and involuntary motion, is independent of the nervous system;” that is, that no muscle, voluntary or involuntary, derives any thing from the nervous system which enables it to contract. And, therefore, that the term nervous influence or energy in this, the most common sense in which it is employed in physiological and medical writings, is absolutely without a meaning.

2. That many muscles are directly excited to contraction by causes acting on the nervous system. And,

3. That the contractile power of all muscles may be much and variously modified, and in some instances destroyed, by causes acting on the nervous system*.

* That changes in the nervous system affect muscular action in both these ways was distinctly pointed out by Haller, in the same paper in which he controverted the doctrine of the dependence of muscular irritability on nervous influence, although the French reporters on Le Gallois' work seem to have supposed that, according to him, changes in the nervous system can only act in one way upon muscles, viz. by directly stimulating them; and, therefore, that, in his

If these principles be correct, we see the necessity, in all investigations concerning the nervous system, of keeping steadily in view a principle which no train of reasoning is necessary to establish, but which has often escaped the attention of those engaged in such inquiries.

When a change is produced in any of the functions of

apprehension, the nerves of the heart must have been absolutely useless. "Un jour," says he, "peut-être, l'on réduira l'usage des nerfs, par rapport aux muscles, à leur porter, de quelque façon que la chose se fasse, l'impression des volontés de l'ame, et à *augmenter cette tendance naturelle, que les fibres ont déjà par elles-mêmes à se contractir*."

And again; "minimè improbable est, etiam cordi per nervos vim motricem accedere, quæ motum, à *natura irritabili* pendentem, *fortiorem et celeriore* efficiat." It is impossible to express more clearly that the muscular power of the heart, although dependent only on its irritable nature, or, as Dr. W. Philip expresses himself, perhaps less correctly, on its mechanism, is liable to increase, and, we may add, to diminution, from causes acting on the nervous system. I apprehend, therefore, not only that Haller has not overlooked the use of the nerves of the heart, but that he has stated their use more correctly than any physiologist since his time.

The experiments of Dr. Philip have illustrated more fully than those of any other physiologist these *two different modes*, in which changes in the nervous system affect muscular action. The general results of his observations; and of those of Haller, Bichat, and others on this subject, may be stated to be, that the *first* mode of action, that is, the direct excitation of muscular fibres to contraction by impressions made on the nervous system, is confined to the *voluntary* muscles; and that the *second* mode of action, that is, the alteration of the vital power, or tendency to contraction of muscular fibres by impressions made on the nervous system, is chiefly exerted on the *involuntary* muscles.

Dr. W. Philip has, indeed, recorded, in the second chapter of the second part of his work, some very important experiments, which he considers as proving that the heart may be directly stimulated by impressions made on the nervous system. But, although the term stimulus was very naturally applied by him to the substances which quickened the action of the heart when applied to the brain or spinal marrow, yet various considerations might be stated to show, that the effect of these substances is more correctly expressed by saying, not that they excited contractions of the muscular fibres of the heart, but that they increased the tendency of the muscular fibres of the heart to contract from the stimulus of the blood.

* Dissert. sur l'Irritabilité, p. 52.

† Elem. Physiol. vol. i. p. 493. — See also vol. iv. p. 516.

the animal economy, by means of a change effected in the nervous system, two explanations of the fact immediately present themselves.

It may either be supposed, that the ordinary exercise of the function affected is dependent on some particular condition of the nervous system, and, of course, suffers a change corresponding to that which the nervous system undergoes; or, without any such habitual dependence of the function affected on the nervous system, it may be supposed liable to change from changes in that system. The former supposition is, perhaps, the more obvious of the two; but there is nothing in the nature of things to prevent the latter from being the true one, it being just as probable, *à priori*, that muscular actions, or secretions taking place independently of nerves, should be *liable to modification*, from changes produced in nerve, as that that power, so totally different from any possessed by nerves themselves, should be *dependent* on any influence which nerves can supply.

Unless, therefore, we have an *experimentum crucis*, to determine which of these explanations, in any particular case, is the true one, we are not entitled, from seeing an alteration, or even the cessation of any function of the animal economy, brought about by changes in the nervous system, to infer the dependence of that function, in ordinary circumstances, on any thing derived from the nerves.

Thus, Le Gallois was not entitled to conclude, from seeing the action of the heart stopped in his experiments by sudden destruction of the spinal marrow, that the ordinary actions of the heart are dependent on, or its life derived from, the spinal marrow; because, without making that supposition, we can suppose it subject to change, from changes in the condition of the spinal marrow. In that case, an *experimentum crucis* in favour of the *latter* supposition was afforded, by the observations of Dr. Wilson Philip, that the *gradual* destruction of the spinal marrow, or its removal from the body, is not attended with any such change on the action of the heart.

The principle stated above has been fully recognised by Dr. Wilson Philip, in reference to involuntary muscular action, but he seems to me to have overlooked it in his speculations on secretion and animal heat.

(To be continued.)

PART IV.

FOREIGN MEDICAL SCIENCE AND
LITERATURE.

RETROSPECT OF FOREIGN MEDICAL SCIENCE AND
LITERATURE, FOR THE YEAR 1819.

ANALYSIS OF FOREIGN PERIODICAL LITERATURE.

(Concluded.)

COMPLEMENTARY JOURNAL OF THE DICTIONARY OF
MEDICAL SCIENCES.

AUGUST, 1819.—*General Considerations on the State called Asthenic, &c.* By Dr. Surun.—(Second and last article).

On the Structure of the Brain, &c. By Professor Lauth.—(Second article).

Memoir on the Hairs and Teeth which are accidentally developed in the Body. By Professor Meckel.—The present article forms only the commencement of the memoir, and consists, for the most part, of historical notices. When completed, we shall extract from it every thing valuable.

Notice of the Hottentot Venus (with a coloured engraving).—Nothing in addition to the accounts which have already appeared in the English journals.

Some Reflections on Animal Magnetism. Suggested by the perusal of a late publication of M. Lombard on the subject, and highly condemnatory of the principles and practice of magnetism.—The work in question is described as the “last effort of expiring credulity.”

Letter from M. Vaidy to the Editor, on Inflammation of the Arteries.—After some remarks respecting the rare occurrence of descriptions of this peculiar state in pathological writers, and an expression of his belief that, were the arterial trunks closely and extensively examined in morbid anatomical researches, it would be much more commonly observed, the author details the case of a soldier, aged forty-two, who entered the hospital of Val-de-Grace, September 27, 1818. His symptoms were those of an organic lesion of the heart in its last stage; swollen face; bluish lips; œdema of different parts, particularly legs and hands; pulsations of heart, and radial

arteries unequal and obscure; respiration deep, laborious, and suffocative. Latter symptoms progressively aggravated, particularly at night: death three weeks after admission.

Dissection, thirty hours after death.—Externally. General œdema, with wheals of various parts. Thorax.—Lungs in some points suppurated. Heart large, all its cavities much developed and extenuated, particularly the left ventricle, which was of a livid colour, and torn with facility; its internal membrane much thickened and inflamed. The membrane of the aorta also thickened, and of a deep red colour, except in some points of the superior part, where it was pale, and sensibly depressed. This change of hue and structure extended, with progressive diminution, to the tibial, radial, and ulnar arteries. Abdomen.—Traces of slight inflammation in the small intestines. Brain not examined.

Letter from M. Begin to the Editor, on the Impostures of the Curate of Vauchassy.—Much has lately appeared in the French journals relative to this reverend empiric. France, it seems, like England, is not without her share of those master spirits who combine the study and practice of medicine with those of theology, and, doubtless, profess to derive their knowledge of the former, as well as of the latter, by direct inspiration from the Deity. Every day proves that in neither country is there any lack of lay dupes; but that there should be clerical impostors to practise and fatten upon their credulity, is, on all accounts, to be lamented.

Chemical Analysis of the Matter contained in the Canals called Biliary of the Moth of the Silk-Worm. By M. Wurzer.

Remarks on a Substance contained in the Peritonæal Cavity of a Cow which died four Days after a laborious Delivery. By J. F. John.—This was a concrete substance, deposited on the surface of the peritonæum; colour yellowish white, soft, viscid, somewhat resembling cellular membrane. Chemical analysis showed it to consist: 1st, of a peculiar matter, holding a middle rank between fibrine and animal albumen, and presenting a texture evidently organic; 2dly, a small portion of fat matter; 3dly, a quantity of mucus; 4thly, some traces of phosphate of lime and other salts.

Two Cases of Operation for Empyema, performed by Dr. Novara.

First Case.—That of a man, aged thirty-three, who, in consequence of unsubdued pneumonia, exhibited all the signs of collection of pus in the left thoracic cavity. The operation was proposed, and for a time rejected by the patient; but he at length returned to Dr. Novara, in an hectic and enfeebled state, and submitted. The operation was performed

four months after the first invasion of the disease. On opening the thorax between the second and third false ribs, a stream of pus, to the amount of twelve pints, rushed out. A seton was then introduced, and the wound dressed with compress and bandage, in the ordinary way. The dyspnœa was nearly removed. During the evening, a quantity of pus escaped. The night was passed tranquilly. Nutritious diet prescribed. Ten days after the operation, wound still discharged pus. Diarrhœa, attributed to the milk, relieved by opium and cinchona. The man has lost all cough and dyspnœa, and resumed his ordinary occupations; but a little pus continues to ooze from the wound.

Second Case.—A robust youth, of fourteen, received the charge of a musket between the fourth and fifth left ribs. The wound implicated the corresponding lung. Hæmoptysis, cough, and syncope, were the first symptoms. Antiphlogistic treatment pursued in vain. Fever, night sweats, emaciation, spitting of pus, dyspnœa, and issue of air from the wound, succeeded. Enlargement of the wound was determined on, and practised on the thirty-sixth day of the disease. Little pus escaped at first; but on the sixth day, in consequence of a deep respiration, several shots and a bit of paper were discharged; and the patient, under a course of cinchona and light diet, recovered in two months. The urine, turbid and purulent previously to the operation, resumed, immediately afterwards, its natural characters. These cases prove, in Dr. Novara's opinion, the utility of the operation; and the first shows that it is contra-indicated neither by the large quantity of fluid effused in the chest, nor the long duration of the disease.

On Wodanium, a new Metal, &c. By Professor Lampadius.

Prize proposed by the Society of Practical Medicine of Paris.—A gold medal, of the value of two hundred francs, will be given by the Society to the author of the best memoir on the following question: "Are the affections of which traces are found in the abdominal viscera, after putrid, or asthenic, and malignant fevers, the effect, cause, or complication of such fevers?" The memoirs, written in French or Latin, are to be addressed, post-free, before the 1st of October, 1820, to M. Giraudy, Perpetual Secretary of the Society, Rue Traversière, Saint Honoré, No. 33.

SEPTEMBER.—*Memoir on Exposed Children, Healthy or Diseased, and on the Means of preserving the greater number of them.* By Professor Fodéré. (Supplement to article *Allaitment* of the Dictionary).—This paper, too long for analysis, contains some very sound views and admirable directions respecting the management of foundlings.

Solution of some Questions on Mental Alienation. By M. Castel. (Supplement to article *Alienation* of the Dictionary).—After attempting to explain the increased frequency of melancholia, with tendency to suicide, in France, by the degeneration of the moral and physical constitution of the people; transition from the excitement of constant warfare, and the passions and enterprise connected with it, to a state of repose; the increase of luxury, and its attendant wants and miseries; the injurious extension of cities; and the absence of good social institutions; the author states it as a fact, that in Spain, and the South of France, the number of insane men considerably exceeds that of women; while, in northern countries, the latter are much more frequently the victims of derangement. To the query, whence this difference proceeds? he replies, that in the inhabitants of the north, the characters which distinguish the constitution of the sexes are much more decided than in those of the south. Almost all the men of the former possess a sanguine temperament; while in the south they have, for the most part, a nervous predominance, which brings the relative sum of their sensibility near that of woman. From such predominance results a high susceptibility to all impressions; and as men are every where more exposed than women to the clashing of interests and the influence of the passions, it follows that, in climates where the proportions of sensibility place them on a level with the latter, they must necessarily be the most subject to insanity. The paper terminates with an eloquent recommendation of a system of constant and regular labour, as the best of all remedies, curative or prophylactic, against mania.

Memoir on the Hairs and Teeth which are accidentally developed in the Body. By Professor Meckel. (Second and last article).

Two Cases of Herpetic Affection, supposed to be Venereal, cured by Local Treatment, and followed by some Reflections on pretended Venereal Herpes. By M. Daidy.—The cases here recorded are those of two men, respectively aged sixty-three and thirty-six. The former had an herpetic ulcer, with insupportable itching, of fifteen years' duration, in the coccygeal region; the latter, a similar affection, two years established, in the cheek. Both had previously contracted syphilis, for which they had submitted to regular and apparently efficacious treatment. Nevertheless, they were reputed venereal, and combated by the internal use of mercury, but in vain. The first was completely cured by the application of white precipitate ointment; and the latter, by that of a weak solution of oxymuriate of quicksilver, subsequently strengthened. In both instances these applications pro-

duced, at first, an aggravation of the malady. The author, in his reflections on these cases, denies the existence of syphilitic herpes, or rather the transformation of syphilis into the latter affection. The co-existence or succession of syphilis and herpes, he argues, no more announces the procreation of one of the maladies by the other, than co-existence or succession of a wound and herpes. In both cases, the primitive affection, whether syphilis or wound, only excites the eruption of herpes in a subject already predisposed to it; and the latter, in either instance, may continue after the destruction of the malady by which it has been determined. There are always here two affections to treat; and an obstinate perseverance in antisymphilitic remedies against herpes succeeding to a venereal disease, is not more rational than the attempt to cure that consequent on a wound by the uniting bandage.

Letter of Dr. Broussais to the Editor, elucidatory of some points of his physiological doctrines.

Case of Blindness, accompanying a Cerebral Commotion, and terminating successfully. By Dr. Doudibertiers.—A young man, of fifteen, fell from a low tree upon his head, and was for twelve hours insensible. On the morrow, the symptoms were, depression, general numbness, severe pains on the slightest agitation; stupor; fear of falling on motion; forgetfulness of the accident; violent headach; pulse wiry, slow, and tense. The boy answered questions, and indicated correctly the injured parts. There was a small wound above the left ear, without complete division of the scalp. These symptoms were relieved by copious blood-letting, abstinence, and aperients. Three days afterwards, distracting headach; intense thirst; perfect consciousness; pulse tense, strong, and frequent; skin hot and dry; vision completely lost, without any appreciable change in its organs; and the other senses unimpaired. Leeches to the neck and ankles; antimonials; nitre; purgatives.—June 11th. (Seventh day from the accident). All the urgent symptoms signally relieved. Began to see objects indistinctly. Stimulant pediluvium added to the other treatment.—20th. Progressive amendment. Excitation, general and cerebral, sensibly reduced. No recollection of past occurrences; vision improved, yet evidently strabismic when fixed on any object. Appetite, as from the commencement, good. Tonic plan; blister to each temple; friction of the extremities, with stimulant applications.—30th. Better, but still feeble; vision improved; cinchona with musk, and repeated vesication of the right arm, completed the cure.

Wound of the Posterior Tibial Artery successfully treated by

Ligature. By Dr. Bouteux. — In this case the left tibial artery was opened by a knife, four fingers' breadth above the ankle. Subject, a male of seventeen. Profuse hæmorrhage with syncope ensued. Compression was inaccurately applied; the bleeding for a week frequently recurred. On examining the wound, about one inch in diameter, a coagulum, raised by strong pulsations, was seen covering it. Compression of the vessel above the wound, seconded by application of a tourniquet to the thigh, failed to arrest the hæmorrhage. Extreme debility; swelling and coldness of the foot, with great sensibility of the parts around the wound, ensued. In this state, the crural artery previously compressed, the wound enlarged and cleared from coagula, the wounded vessel was secured by ligature, which included also the posterior tibial nerve, as numbness of all the parts in its course was instantly felt. The hæmorrhage ceased; but, the ligature having slipped, recurred on the ensuing day. The ligature was again tightened, and the bleeding finally suppressed. Six weeks after this blundering operation, the cure was effected; and the parts supplied by the tibial nerve had regained their lost sensibility. The author cursorily adverts to a similar case successfully treated by six weeks' compression. The excessive debility, resulting from repeated hæmorrhage during the first twenty days, was supposed to contraindicate the employment of ligature. This is not British surgery.

Notice on the Corpora Cavernosa of the Penis of the Horse, with some Reflections on the Phenomena of Erection. By F. Tiedemann. — An interesting paper, which we shall hereafter notice.

OCTOBER. — *Memoir on a Gangrenous Affection peculiar to Children.* By M. Isnard Cevoule. — In 1816, M. Baron published an excellent memoir upon this subject, which has been transcribed at least in one of the British journals of that period*. The present writer regrets that Baron has said nothing respecting the gangrene of the external parts of generation in female children, to which that of the mouth, as described by him, is so closely related. He moreover complains, that the disease in question has hitherto been very imperfectly delineated, and, by most authors, incorrectly confounded with the gangrene resulting from advanced scurvy. The memoir is too interesting to be passed slightly over; we shall therefore now merely trace the conclusions respecting the malady at which the author has arrived, and reserve the body of the memoir for extended analysis in our

* Medico-Chirurgical Journal and Review, Vol. IV. page 70,

next Number. 1st, The gangrene of children is the same, whether it attack the mouth or genital parts. 2dly, It is invariably the consequence of one, and sometimes of several ulcerations of the mucous membrane. It commences on the internal surface of the cheeks, or labia majora, and proceeds from within outwards. 3dly, It is at first purely local, general symptoms only being observed in its second stage. 4thly, It is not contagious. 5thly, The application of actual cautery constitutes the most efficient mode of treatment.

On the Structure of the Brain, &c. By Professor Louth:—(Third article).

Researches on Milk, and its constituent Principles. By Professor Schubler.—This is a long paper, and we have not time to follow the author through all his curious and apparently correct observations. We shall merely state the results of his analysis of the fluid, which are the following. They differ widely from those lately published by Berzelius; and hence, in the author's opinion, prove the great influence of food and climate on the lacteal secretion. 1000 parts of new milk contain 110 of fresh cheese, 50 of fresh *serai*, 24 of butter, 77 of coarse sugar of milk, and 739 water; or, in a dry state, 42.6 cheese, 7.87 *serai*, 24.0 butter, 77.0 sugar of milk, and 848.53 water: 1000 parts of skimmed milk contain 43.64 dry cheese, 8.06 dry *serai*, 78.94 sugar of milk, and 869.34 water: 1000 parts of cream contain 240 butter, 33 cheese, 6 *serai*, and 721 whey: lastly, 721 parts of whey contain 60 coarse sugar of milk. These observations were made at Hofwyl, which is some distance from the mountains, and where the cows are kept constantly in the stable, so that the milk must be nearly the same as in other flat countries.

Description of two Six-fingered Individuals. By Dr. Virey.—An account of two children, who each present six fingers and toes on their different extremities. They were completely idiotic, and their limbs had acquired an undue development, apparently at the expense of the head and trunk. Their parents were, in every respect, naturally formed. There is nothing in the description, or the remarks, that entitles these cases to particular attention.

On the Differences presented in the Excretory Canal of the Pancreas by Man and the Mammiferous Animals. By Dr. F. Tiedemann.—This we shall fully notice in our next Number.

Letter of M. Surun to the Editor, in reply to Broussais. Merely controversial.

Letter of M. Molat to the Editor, describing another clerical Practitioner of medicine and imposture, equally enlightened and disinterested as "*le Cure de Vauchussy*."

Case of remarkable Aphonia consequent on Gastric Nervous Fever. By Dr. Gunther. — There are two kinds of aphonia. In one of these no sound is emitted; in the other, the sounds emitted are inarticulate. The first is a frequent symptom or consequence of acute or chronic diseases, as malignant fevers, inflammations of the throat and chest, gastric and verminous affections, and catalepsy, hysteria, and epilepsy. It is also observed after the suppression of habitual hæmorrhages, the recession of some exanthemata in pregnancy, or from terror. In fever, especially when conjoined with other unfavourable symptoms, it commonly announces the most imminent danger. The second species is a frequent attendant on several diseases, as apoplexy and worms: it has also been remarked after repelled perspiration and small-pox.

These two kinds of aphonia Dr. Gunther has frequently observed, as attendant or consequent on diseases. The proximate cause of the first he has invariably found to exist in the larynx, and of the second, commonly in the tongue. This organ is then either deformed by congestions, so that the patient only stammers out unintelligible words, or deprived, in whole or in part, of the power of motion. But he is unable to explain how the articulate voice can be wholly obliterated, without any apparent defect in its organs, or derangement of the intellectual faculties. The following case, observed by him, is then detailed: — An irritable girl, aged eleven, after recovering from a gastric fever, of three weeks' duration, could only express her wishes by inarticulate sounds. The hearing was good, and intellectual functions unimpaired; and as the organs of speech, mastication, and deglutition exhibited no imperfection, the affection was supposed to depend simply on caprice: but the contrary was soon apparent. Different means were employed without effect. After three weeks, a suspicion arose that the aphonia might depend on a critical affection of the glosso-pharyngeal nerve. Two large blisters were consequently applied at the side of the nucha, on the point where these nerves issue from the cranium. After twelve hours convulsions occurred in the tongue, and the patient complained of pain there: speech was insensibly restored; so that, in a few days, the girl articulated as distinctly as ever.

Prize proposed by the Society of Practical Medicine of Montpellier. — The subject here proposed regards the physical topography, diseases, and climate of Montpellier. The prize, a gold medal, value three hundred francs, to be adjudged May 15th, 1821.

NOVEMBER. — *Physiological and Pathological Reflections on Asthma.* By M. Begin. — The object of this memoir

is principally to refute opinions contained in a recent publication, by M. Rostan, respecting the etiology of asthma*. After some reflections, historical and physiological, on the subject, and the detail of a case of convulsive asthma, not obviously complicated with any sign of organic lesion in the heart or large vessels, and where the paroxysm was commonly shortened by local blood-letting, once transiently arrested by terror, the author proceeds to develop his peculiar views. Of these we cannot convey a more correct notion than by transcribing almost literally the conclusion of the paper.

The mucous membranes which invest the respiratory and digestive organs are, as demonstrated by Broussais, the seat of the real internal senses that transmit to the cerebral centre the multiplied impressions whose origin had been before referred to the ganglia of the nerves of organic life. Upon the manner in which bodies submitted to their action affect these membranes, depends the regular execution of the functions of the organs invested by them. Bichat evidently erred in asserting, that every muscular plane of organic life enjoyed a sensibility, especially in relation with a particular foreign body; and that it admitted some, and repelled others, according to the sensation experienced from them.

All these bodies act on the mucous membrane; and the muscular planes, situated behind, contract only from the impression which the former have determined on the numerous nervous papillæ entering into its composition. Thus, if foreign bodies be too irritating, or the membrane diseased, the impression resulting from their contact becomes painful, and the organ contracting expels the cause of stimulation. In pulmonary catarrh the air alone sometimes occasions a violent cough; and in some gastric irritations the presence of the mildest fluid will excite vomiting; while in inflammation of the mucous membrane of the bladder the urine cannot, for an instant, be retained in its cavity.

The irritation of the membranes, in addition to determining contraction of the muscular fibres exterior to them, frequently excites the muscles which invest the parietes of their containing cavities. Thus, in vomiting, tenesmus, and cough, the abdominal and thoracic muscles come in violent and convulsive contractions, under the influence of the excita-

* See REPOSITORY, Vol. XI. page 145.

tions of the mucous membranes. If, in diseases, all the importance of mucous irritations have not yet been recognised, it seems to arise, independently of the infant state of morbid anatomy, from the circumstance, that most commonly the principal effects of these irritations are sympathetic. Thus, in many cases, chronic inflammation induces but slight lesions in the structure of mucous membranes, while the subjacent tissues become thickened and disorganized, or the remote organs with which they sympathize are the seat of varied nervous phenomena. Under almost all circumstances effects have exclusively fixed the attention of the Physician, the imperfection of physiology not permitting him to ascend to the real causes of the disorders observed.

If it be true, that in health the movements of the hollow organs are made dependent on the impressions received by their investing mucous membranes; if the auxiliary contractions of the abdominal and thoracic muscles be determined by these impressions, can the same phenomena be attributed to other causes in disease? On the contrary, it seems demonstrated that the symptoms of convulsive asthma are only one of the sympathetic effects of the irritation of the pulmonary mucous membrane. The character distinctive of this affection consists in an obstacle opposed by the spasmodic contraction of the laryngeal muscles, and probably by constriction of the bronchial ramifications, to the introduction and issue of the air from the lungs. When this obstacle exists not, considerable dyspnoea may indeed be observed, frequently accompanied by a sense of impending suffocation; but those prodigious efforts of the respiratory muscles, scarcely capable of overcoming the resistance opposed to them by their aerial tube, are not remarked. Where this nervous state is manifested in other organs invested by mucous membranes, the system may sustain privation of the stimulants of these membranes until the spasm has subsided. With the lungs it is not the case: respiration must go on; and in vain is the spasmodic constriction of the trachea opposed to it.

This etiology of convulsive asthma seems to be demonstrated—1st, by the observation of the croup called nervous in children; and by certain catarrhs, which, both in them and adults, are accompanied by symptoms of this affection: 2dly, by the expectoration which terminates almost all the paroxysms, degenerates into chronic catarrh, and constitutes the transition of the dry into the humid asthma of authors: 3dly, by the good effect of sedatives, leeches, antispasmodics, and revulsives, which will sometimes long avert the

paroxysms*: 4thly, by dissections. On examining the pulmonary mucous membrane of subjects who have died in a fit of asthma, manifest traces of inflammation are almost invariably discovered. Rostan has repeatedly noticed this state of the membrane, and even seen it complicated with ossification behind the bronchiæ. Now these organic changes, like tubercles of the lungs, are frequently the result of protracted irritation of the mucous membrane.

The following case is then detailed:—A soldier was admitted into the *Val de Grace Hospital*, with all the symptoms of violent convulsive asthma. Pulse extremely feeble; skin livid; countenance altered; anxiety extreme; suffocation impending. Symptoms greatly relieved by blood-letting. He had repeatedly suffered from them before, and been affected with chronic catarrh, accompanied by copious expectoration. Thoracic percussion showed no alteration of the pulmonary structure. Independently on the affection of the lungs, gastric irritation manifestly existed, but was subdued by leeches and mucilaginous remedies; and the dyspnœa was greatly relieved. Yet the expectoration continued abundant; cough continual; and the man eventually sunk exhausted.

Dissection.—Heart and large vessels perfectly sound; pulmonary mucous membrane highly inflamed; slight *carnification* in the central and posterior part of the right lung; otherwise crepitous and healthy.

This irritation of the pulmonary mucous membrane, which occasions convulsive asthma, may terminate like all the others. It frequently produces ossification of the bronchiæ and organic lesions of the lungs. Prost has seen it terminate in fatal hæmoptysis.

It results from the preceding observations, that if convulsive asthma, or irritation of the pulmonary mucous membrane, may be determined by organic lesions of the heart, the lungs, or large vessels, and if we may then assert with Rostan, that asthma is a symptom of an organic lesion, it is not less true that this affection may arise from primitive irritation of the mucous membrane, and that then organic lesions are not only in the aged but in the adult—the *effects*, instead of being the *causes* of the disease.

Notice on the Utility of Water in External Lesions. By M. Laurent.—The application of this simple but benign remedy in surgical practice is certainly, at present, too much

* The lady whose case has been before adverted to sustained but slight attacks of her habitual disease after excitant remedies, employed by her, had induced chronic gastritis, the symptoms of which insensibly replaced those of the convulsive asthma.

neglected. An earnest recommendation of it, illustrated by two instances of its successful employment in violent contusion, constitutes the object of this paper.

Researches and Observations on the Substances employed by the Savages of America to poison their Arrows. By F. A. G. Emmert. (First article).—A long and interesting production, to which, when concluded, we shall copiously revert.

Observations respecting a Family, of which each Individual presents several remarkable Anomalies. By M. Isoard.—A curious relation, but destitute of practical utility.

Observations on Yaws. By Mr. Thomson.

Description of an Instrument for destroying Calculi in the Bladder. By Mr. Elderton.—Both from the English.

Remarkable Case of Aortic Aneurism. By Dr. Neumann.—From the German*.

Letter of M. Bidault de Villiers, to the Editor, describing an hitherto unnoticed variety of sex-digital malformation, which consisted in the existence of a supernumerary thumb. This, like all the fingers of a similar nature, was smaller than its associate. It had a phalanx susceptible of flexion on any external impulse, and was not articulated with the metacarpal bone. It was removed by an operation. The feet of the subject, a boy, aged five, exhibited only the ordinary number of toes.

Necrological Notice of Dr. Chaumeton. By Jourdan†.

* See REPOSITORY, Vol. XII. page 378.

† We have unfortunately not received the December Number of the *Journal Complimentaire*.

PART V.

MEDICAL AND PHYSICAL INTELLIGENCE.

ROYAL ACADEMY OF SCIENCES AT PARIS.

Mineralogy and Geology.

M. BEUDANT continues to enrich crystallography with researches equally new and interesting. We saw last year, by his experiments, how a saline principle of a certain kind sometimes impressed its crystalline form upon a mixture in which it did not by any means form the greatest part.

He has occupied himself this year with a question that is not less important in respect to the knowledge of crystals; namely, to determine the causes which occasion a saline substance, whose primitive molecules and nucleus have a constant form, to be disguised, by means of the accumulation of its molecules according to different laws, with so many and so various secondary forms that their number is sometimes astonishing.

Having remarked that the secondary forms of a substance are most commonly the same in any one mine or place where it is found associated with other minerals under similar circumstances; he judged that the secondary forms arise from the medium in which the crystallization takes place.

It has been known for a long time, from the experiments of Romé de Lille, and those of Fourcroy and M. Vauquelin, that the presence of urea occasions common salt to take an octahedral form, although in pure water it crystallizes in cubes, similar to its constituent molecules. The same substance produces an opposite effect upon muriate of ammonia, which crystallizes in octahedrons in pure water; while urea causes it to crystallize in cubes.

A very slight excess or deficiency of base in alum causes it to assume either cubical or octahedral secondary forms; and these forms are so truly secondary, that an octahedral crystal of alum immersed in a solution which is richer in respect to its basis, becomes enveloped with crystalline layers, which cause it to assume at length the form of a cube.

Setting out from these facts, M. Beudant treats the question at full length, and has submitted the crystallization of salts to experiments made under every circumstance that he believed capable of exerting any influence upon it; namely,

1. General and external circumstances; such as heat, weight of the atmosphere, greater or less rapidity of evaporation, bulk of the solution, form of vessels, &c.

2. Mechanical mixtures which foul the solution, whether simply suspended in the state of an incoherent precipitate, or in that of a gelatinous deposit.

3. What he denominates chemical mixtures existing in one and the same solution.

4. Lastly, variations in the proportion of the constituent principles of the crystallized substance.

The circumstances of the first kind do not exercise any other action than what regards the size and perfection of the crystals. The case is even the same, as to any small portion of matter which remains in permanent suspension in the liquid; but this cannot be said in respect to precipitates and chemical mixtures.

Crystals formed in the midst of an incoherent precipitate, deposited like mud at the bottom of a liquid, always take up a more or less considerable portion of the molecules of this precipitate, and by this admixture they usually lose all those small additional facets which would otherwise modify their predominant form. Thus the crystalline form acquires greater simplicity when it should apparently become more complicated; at the same time, the substances which would otherwise have yielded simple crystals still continue to yield them, and they do not receive any modification.

In a gelatinous deposit crystals are rarely found in groups, but almost always single, and of a remarkable sharpness and regularity of form; and they do not undergo any variations, but those which may result from the chemical action of the substance forming the deposit.

The variations that take place in crystals formed in a chemical mixture, that is to say, in a solution of another substance, are very numerous, even when this substance cannot be united with them. The above-mentioned phenomena are repeated in different forms: common salt crystallized in a solution of borax acquires truncations at the solid angles of its cubes; and alum crystallized in muriatic acid takes a form which M. Beudant has never been able to obtain in any other manner.

If the foreign substance dissolved in the liquid can be united in any

proportion whatever with the crystal of another substance that is formed in it, and nevertheless the crystal, by its superior energy, determines the form of the constituent molecule, as we saw last year in the case of sulphate of iron, the matter in the solution will exercise in its turn some influence upon the secondary form of the crystal; and this influence usually consists in simplifying it, and causing the additional facets to disappear.

Thus 30 or 40 per cent of sulphate of copper may be united to the rhomboidal crystallization of sulphate of iron, but it reduces this sulphate to a pure rhomboid without any truncation either of the angles or of the edges.

A small portion of acetate of copper reduces sulphate of iron to the same simple rhomboidal form, notwithstanding that this form is so disposed to become complicated with additional surfaces.

Other mixtures simplify in a less degree: thus the sulphate of alumine brings that of iron to a rhomboid with the lateral angles only truncated, or what M. Haiy calls his *variété unitaire*; and whenever this variety of green vitriol is found in the market, where it is very common, we may be sure, according to M. Beudant, that it contains alumine.

Lastly, the different proportions between the base and the acid, or, in double salts, between the two bases, produce very sensible effects upon the secondary forms, without altering the primitive form in the least. This has been already exemplified in respect to alum, and M. Beudant has verified it in many other salts.

The author of these researches has made some ingenious applications of these facts to the phenomena afforded by different crystalline mineral substances, upon which direct experiments cannot, in the present state of the science, be made; and he has exhibited some striking analogies: thus natural crystals mixed with foreign substances are in general more simple than others, as is shown in a specimen of axinite, or violet schorl, of Dauphiné, one extremity of which, being mixed with chlorite, is reduced to its primitive form; while the other end, which is pure, is varied by many facets produced by different decrements.

There are found rather abundantly in a ravine of the Mount d'Or, in Auvergne, fragments of a breccia; the hardness and other external characters of which having led to the supposition of its being of a siliceous nature, mineralogists did not pay much attention to it, except on account of some particles of sulphur which it sometimes contains in small cavities.

M. Cordier, having submitted this breccia to different trials, found that it yielded by heat a notable proportion of sulphuric acid, and upon this important indication he proceeded to make a complete analysis of it, by which he found that this stone contained about 28 per cent of silica, 27 of sulphuric acid, 31 of alumine, 6 of potash, and a little water and iron. These are very nearly the same ingredients as are found in the celebrated ore of Tolfa, which yields Roman alum. In reality, upon treating this breccia from the Mount d'Or in the same manner as is practised at Tolfa, that is to say, by breaking it, roasting, and exposing it to a moist air, from 10 to 20 per cent of very pure alum was obtained from it; and this breccia even yielded alum without being roasted, but merely by exposure in a damp situation.

It is probable, from the researches made upon the spot by M. Ramond, that, with some pains, the beds from which the fragments scattered in the ravines were detached, may be discovered; and that quarries may be opened, the working of which cannot but be of advantage.

M. Cordier regards these sorts of stones as a mineralogical species, consisting essentially of sulphuric acid, alumine, and potash. The silica found in it is not essential for quarries of a stone not containing any silica; but all the other consistent principles exist at Montrone, in Tuscany, and yield the same products as that at Tolfa. Those varieties of this species in which

silica enters, are easily distinguished by the jelly they form when they are treated in succession with caustic potash and hydrochloric acid diluted with water.

M. Cordier reduces to this species several volcanic stones, hitherto vaguely designated by geologists by the general denomination of altered lava.

Some country people, in the department of the Lot, allured by the hope of finding pretended treasures, which are said to have been formerly buried by the English in certain caves in the neighbourhood of Breugue, have penetrated into these cavities, and having dug into and enlarged some crevices which they found at the bottom of them, they have discovered a deposition of bones, some of which belong to horses; others to that species of rhinoceros of which so large a quantity of fossil bones have been found in Siberia, Germany, and England; others, again, to a species of cervus, not at present known to exist, and the horns of which have some slight analogy with those of a young rein-deer.

Guettard found a great number of these horns in the neighbourhood of Etampes.

These important witnesses of the revolutions of our continent have been collected by M. Delpont, Procureur du Roi at Figeac, and presented to the academy by M. Cuvier. They are deposited in the king's cabinet.

M. Palissot de Beauvois has acquainted the academy with a rather singular geological appearance, which he observed in the county of Rowan, in North Carolina. There is found, in the middle of a hill formed of very fine sand, mixed with small quartzose stones, and with numerous pieces of silver-coloured mica, a vein of stones so regularly placed, that the inhabitants, who for a long time have noticed the appearance, give it the name of the natural wall; and some naturalists have even maintained that it was a true wall, which might have been constructed in very remote ages by some people now unknown. The stones have generally four faces, are narrower at one of their ends, and have a small notch below their top. They are ranged horizontally. The kind of wall which they form is about eighteen inches thick, its height, in the place where it is uncovered, is from six to nine feet; but upon digging into the ground, it has been followed to twelve and eighteen feet deep, and it is already known to extend three hundred feet, and even more, in length. A kind of argillaceous cement fills the intervals between the stones, and coats them externally; each of the stones is also covered with a layer of ochreous sandy earth.

M. de Beauvois has brought some of these stones to France, and, upon being examined by the mineralogists of the Academy, they appeared to possess the characters of basalts; but, as there have not as yet been found any traces of basalts or of volcanoes in the United States, and as the place where this wall is found is, generally speaking, of a primitive nature, it is possible that this pretended wall is nothing but a bed of trap; an amphibolic rock, very similar to certain kinds of basalts.

We spoke, in 1816, of the labours undertaken by M. Moreau de Jonnes to determine the geology of the Caribbee Islands, of the general ideas he had adopted on this subject, and of the particular description relative to Martinique and Guadaloupe, that he had presented to the Academy. He has continued the arrangement of his labours, and has read a paper upon the Vauclan, one of the most remarkable mountains in Martinique, not that it is the highest, but because it serves as a guide, and announces this island to navigators. It has not the form of a cone, hollowed at its top, but that of a prism, resting on its side, or of an immense basaltic ridge; and M. de Jonnes considers it as part of the circuit and of the edge of a very large crater, the whole of which he thinks he has traced. The bottom of this crater is at present a valley, not only fertile, but well cultivated.

The same author has given a geological description of Guadaloupe. He

finds that the western island, in which there exists a solfatara in an active state, and the surface of which is about sixty-seven square leagues, owes its origin to eruptions from four large submarine volcanoes, and that the eastern island, commonly called Grande Ferre, is formed of a volcanic basis, covered with a thick bed of shell limestone. At Martinique, the eastern quarters are also covered with beds of marine limestone, either shelly or coralline.

The second part of *La Richesse Minérale* of M. Héron de Villefosse, which was presented in manuscript to the Academy in 1816, has appeared this year in print, with an atlas. This work has justified the judgment that the commission passed upon it, and is become the indispensable guide of all those who are employed in the administration of mines, and in the works belonging to them.

(To be continued.)

TO THE EDITORS OF THE LONDON MEDICAL REPOSITORY.

GENTLEMEN,—Having had occasion to pay particular attention, this season, to Conium, and the results of my experiments thereon being, I humbly conceive, both curious and important, and as the time for getting this plant in perfection is rapidly passing away, I propose repeating the experiments on this plant at the laboratory of St. Thomas's Hospital, on Friday next, the third of June. The process of "pounding" will take place about half-past one o'clock.

I remain, Gentlemen,

Your humble servant,

R. B.

NITRATE OF SILVER.

M. BRANDENBOURG has pointed out an economical method of separating silver from copper, or of making pure nitrate of silver from an alloy of silver and copper, which is an object of some importance to practical Chemists. His method is as follows:—

He dissolves the alloy of silver and copper in nitric acid, and evaporates the liquid to dryness in a glass vessel. The salt is then put into an iron spoon, and exposed to a moderate heat, keeping the salt in a state of fusion till all ebullition is at an end. It is then poured upon an oiled slab. To determine whether all the nitrate of copper has been converted into black oxide, a little of the salt is dissolved in water, and the solution is tested by ammonia. If the liquid, which ought to have been at first transparent and colourless, does not acquire the least tint of blue, we may conclude that it contains no copper. If there be still found traces of copper in the salt, we continue the fusion for some seconds longer. The salt by this treatment becomes black, from the mixture of peroxide of copper with the nitrate of silver. To separate them, we have only to digest the salt in pure water. The nitrate of silver is dissolved, and constitutes a transparent and colourless solution, while the peroxide of copper remains behind. We have then only to evaporate the solution to obtain the nitrate of silver in the state of crystals.

[We have been requested to insert the following illustration and defence of Sir Richard Phillips's Philosophy, on account of its bearing upon Physiology.]

To trace the harmony of Nature, and the universal analogy of cause and effect, is as delightful as satisfactory, when we divest ourselves of the superstitious and legerdemain philosophy, and pursue our inquiries by means of the great landmarks of MOTION, as an universal and sole AGENT, and MATTER as ITS PATIENT, by means of which phenomena of every kind are created and exhibited.

To admit this doctrine, is to open the eyes of the mind: to deny it, is to close them. To feel its truth, is to possess a talisman to the secrets of all

nature. To exclude it from our perceptions, is to shut ourselves in a sort of twilight on most subjects, and in utter darkness on others. To apply so universal and unerring a principle to philosophy, is like ascending a lofty hill in a picturesque country, and obtaining such a view of the harmonious causes of surprising effects, as in the valley beneath we acquire of objects but partially seen or invisible. Yet such is the conceit, pride, or folly, of the societies called Learned, which dictate opinions to the great and small vulgar, that, although this palpable principle of nature has been above two years before the world, we still read, in all their transactions and discussions, of their attractions, repulsions, projection, gravitation, vacuum, affinities, vital principle, caloric, electric, &c. fluids, and a score of other similar *hocus-pocuses*, the recognition of which will be adduced, in a future age, as a proof of our infancy in science, and of the ascendancy of the low superstitions of the monkish ages. They are, in truth, exactly analogous in principle and character to the sympathies, predilections, abhorrences, inherent natures, incantations, exorcisms, &c. &c. of past ages, though, like them, they have not yet been exploded. Let no man, however, lay claim to the title of philosopher, or consistent reasoner, who admits the former class of superstitions, while he discards the latter.

After all that has been published of the necessary effects on matter resulting from its motions in AGGREGATES, and from intestine motions in the ATOMS of aggregates, it is needless to urge more to real votaries of truth on the elementary principles of these doctrines. It must, in due time, be admitted, that all planetary and aggregate phenomena arise from the transfer or participation of aggregate motions; and that all the phenomena of heat, and, consequently, most of the agencies of chemistry, result from atomic motions, variously excited, accumulated, and accelerated.

Other points may be discussed at leisure; as whether any matter exists which is not in some degree potential, or armed with some motion; whether aggregate motion results from peculiar combinations, concentrations, and transfers of atomic motion, or whether atomic motion is not always caused by the percussions of aggregates; whether the varieties of atomic motion are caused by various forms of compounded atoms; whether atomic and aggregate motions are not constantly interchanging, &c. &c.? all which are hypothetical questions worthy of being discussed; but of the grand universal principle, *that all phenomena are caused by the application of various degrees of aggregate or atomic motion to variously constructed matter, variously situated in regard to other matter*, there can be no doubt; and no pretence or necessity can exist for further discussion to prove or establish it. No principle of nature was ever adduced by man, at once so new, so comprehensive, and so applicable to every subject of philosophical inquiry; and in due time, perhaps before this generation has passed away, it must be recognised as the basis of all physical truth; while all existing systems must be regarded as vague, irrelevant, superstitious, and absurd.

I am led to make these observations by the application of the new doctrines to the phenomena of ANIMAL EXISTENCE; a subject which has hitherto been so incomprehensible, and so fruitful in controversy.

The new system ascertains the following positions:—

1. That all animal motion is a transfer of the motions of the earth, or a deflection of the motions of the earth from the earth to the animal.
2. That the terrestrial motion is transferred from the lower to the upper extremities, by action and re-action purely mechanical.
3. That all animal power is derived from this re-action, and consists in a greater or less quantity of motion deflected from the earth by re-action through the muscular parts of the animal.
4. That without re-action from the earth, an animal loses all that power which by re-action it derives from the earth.

5. That without the great motions of the terrestrial mass there would be no motion to transfer or deflect; consequently, if the earth stood still, there could be no motion to transfer, and all animal locomotion would necessarily cease.

6. That all vitality or vital motions are consequences of the transfer of the atomic motion, always present in the gaseous medium or fluid in which animals live.

7. That the act of respiration necessary to all animal life, is merely a mechanical process for transferring the atomic motion, contained in the said gas or fluid, to the aggregate and fluid parts of the animal.

8. That in its concentration, during the act of respiration, it imparts the atomic motion which existed in the gas or media to the animal; or, in other words, that transferred or converted atomic motion warms and variously excites the several fluids of the animal.

9. That other mechanical arrangements connected with the process of respiration, by which the media is concentrated and atomic motion imparted, produce the peristaltic, arterial, and other motions of the animal system, some primary and some consequent.

10. That when the body cools, the natural means of increasing the heat is to increase the respiration, and create atomic motion in the system by some exercise, by which the atomic motion or sense of heat is not merely increased, but accumulated and accelerated.

11. That this accelerated atomic motion imparted to the fluids of the animal, produces a corresponding expansion of the fluids, and an evaporation by the pores of the skin, when they duly perform their functions.

12. That to replace the consumption of the fluids by evaporation, it becomes necessary to supply the roots of the animal system, where they centre in the stomach, by introducing suitable substances or manures into that cavity, which, during their decomposition, impart atomic motion, as well as assimilate to the substance of the animal.

13. That the progress of various kinds of animal growth may be always expressed by a curve line, or path of a projectile, with different curvatures, the abscissa representing the flow of time, from the generating increment; while the form of curvature is determined by a law of simultaneous accumulation and dispersion, which law limits the form of the curve; and when the apex or greatest effect has been attained, a corresponding descent takes place, owing to the gradually exhausted excitement, which diminishes the accumulation, the ascent and descent being represented by a series of parallel ordinates. Hence we have all the varieties of duration, of youth, maturity, decay, and life; and hence it is that those periods bear necessary relations to each other.

These succinct principles of physiology might be increased, so as to embrace every species and variety of animal phenomena, and explain the causes and cure of diseases; but the MEDICAL REPOSITORY has not room for such details; and it is not necessary that this task should be performed, either in this place or by this writer, in a country which produces a hundred volumes per annum on subjects of medicine, and supports thirty thousand Practitioners, who live by *professing* to study and understand animal economy.

COMMON SENSE.

Dr. DE SANCTIS' Letter to the Editor on an Improved Project of Reanimation.

(Continued from page 360.)

THE *rima glottidis* might be shut by lateral compression of the larynx; the sides of it might be almost glued together by the tenacity of mucus, as we see sometimes in dead bodies. In the *projected apparatus* there is not any force which could so press the sides of the *rima*; but if occasionally mucus should glue the *rima*, even in cases of suspended animation, what is to be done? Will it be satisfactory to open the passage of the glottis by

forcing for an instant into the larynx a metallic tube, as I did successfully at first in a corpse, or shall we fix the bellows to the standing larynx-tube during the time of the artificial respiration? I should rather believe the second advice to be the best, because, notwithstanding the well closed pharynx, mouth, nostrils, and even ears for the greatest surety, the air in my experiments could be prevented again from entering the windpipe by fresh mucus; and when its passage was not more prevented, it was certainly rendered more and more difficult. The passage of the glottis could not be rendered constantly free, except by introducing a metallic tube through an aperture externally up the sternum, and forcing it many times beyond the *rima* in every possible direction. Before this trial, the former resistance was always recurring. And it was curious to see of how little consequence was the greatest effort in pressing a large kitchen-bellows! The air was presenting the strongest resistance; and it was going out a little only when it could find occasionally any way through the mouth or through the nostrils at any occasional relaxation of the means employed for shutting them. The sponge in this experiment had been pushed into the gullet so low as to avoid any influence of its compression in diminishing the diameter of the windpipe. A distinguished Surgeon, in whose house Professor Aldini began the first experiments for trying with the new pensile pile, very imperfect at that epoch, some new way of applying more rationally than before galvanism in cases of suspended animation (which will be, at some future time, the subject of another letter), has assured me repeatedly, that more than once he was not able to force the air in such cases but after many serious efforts. The cause very probably was the same, if we consider that the precautions taken for preventing the dissipation of the air through other ways were the insufficient ones of the ancient methods. If I might be allowed to protect myself under the authority of an eminent writer in this very branch of the healing art, I would quote the passage of the "Essay on the Recovery of the Apparently Dead, by Charles Kite, London, 1788," where he says, "Frothy mucus, now and then mixed with blood, is very generally to be met with in the lungs, and sometimes in considerable quantity, owing to the blood and mucus being forced through the vessels by the great distention of the pulmonary artery; and this, I have no doubt, has frequently been taken for water," &c. In this passage Kite seems to reject the opinion of those who believed the water could be soon introduced into the lungs; but, waving this question for the present, it seems that the same obstructions might take place higher up in the windpipe, and in the very pharynx, as well as in the lungs. The observation is not new to people who are in the practice of opening bodies, and the former cases of Mr. Pettigrew and my last experiments tend to place it beyond a doubt. Therefore, considering that it is better to be abundant than deficient in precaution where any loss of time would be of the most serious consequence, I would recommend to begin always by fixing the larynx-tube; and the more so, that the small dimensions of the new box-bellows not allowing the air to be pushed with so great force as in the larger ones before in use, the instrument would be nearly useless if not applied directly to the windpipe, whatever attention should be given to the means employed for preventing the escape of the air through other parts; and, by the by, the rectified box-bellows lately employed by me in the corpse, could place at my disposal a hundred and twenty cubic inches of air in its full development. It would not, however, be difficult to double the volume of the air, and perhaps the violence of the aerial injection, in coupling two of the new cylinders, which could act together in the same direction; but such a great quantity of air, and so great a force of aerial injection, are not necessary at all when the larynx-tube is used, and would never do when not employed. The lighter dimensions of the chest, besides, impose necessary restrictions in the scale of the instruments therein enclosed.

Another reflection here occurs. Whatever might be the force of the bellows, it requires always the greatest attention to be given to the means employed for preventing the dissipation of the air, when it is forced into the cavity either of the mouth or of the nose; but it is not the same if the air is forced directly into the larynx-tube, and the greatest effect may be produced with only half of the projected box-bellows, if the communication with the larynx-tube be in the same direction with the axis of the aerial cylinder, and the axis not be allowed to oscillate by the directing *regulators*, and care be taken to push all along the silver-tube a light piece of sponge on the very *glottis*. The simplicity of the means employed, and the quickness in operating, are of some importance where rapidity of action is perhaps the first thing to be considered, and where so many other proceedings require the simultaneous attention of the operators; and it is easy to see that the exclusion of the forceps for the nose, of the cotton for the ears, of any elastic mask whatever, of any regulator in the pharynx, of any regulator for the larynx-tube, and of any farther attention to all such things in the progression of the operation, will certainly add to the simplification as well as quickness of it. This new method of inflation was tried by me in a subject that had been dead many days. The hundred and twenty cubic inches of air were all easily introduced into the lungs; the epigastric region, alternately elevated and depressed, proved it clearly, and a more decided proof was obtained by the external incision practised in the windpipe up the sternum. The new box-bellows, which consists of only one cylinder with an hole in one basis and a little tube of communication in the other, could expel the air from the lungs, if the injected air should remain there a long time. That could be obtained by developing it again without displacing the thumb from the hole, and by forcing it afterwards with the open hole. But such is the elasticity of the pulmonary cells distended only downwards, such is the reaction of the diaphragm and the displaced abdominal viscera, that notwithstanding the difficulty of getting its way through the almost closed *rima glottidis*, the air is forced upwards again, and in less than three or four seconds every thing returns to its former state; no aspiring action therefore seems to be necessary. The hundred and twenty cubic inches of air could be certainly tolerated by any lungs without injury. The medium quantity of air which the lungs might contain at their full development, in an healthy and middle-sized person, is 300 cubic inches, of which nearly one hundred remain even after expiration. It is not to exceed the limits of the capacity in the lungs of any person whatever, to inject, *plus minus*, the half of a full inspiration in a middle-sized person. It would not be difficult to increase the quantity of that air; but care is to be taken, that the pulmonary cells are distended only in one direction, as the thorax remains constantly fixed at the injection not only of one hundred and twenty cubic inches of air, but of any larger quantity which I was able to inject with a large kitchen-bellows, the greatest care being taken to prevent its dissipation. This experiment tends to prove, that professional men, even of distinction, may sometimes be deceived by appearances in the most ordinary things. It was asserted, and I was induced naturally to follow professional authority in my *projet*, that *expiration* may be effected by pressure on the chest and upper part of the abdomen; but I should rather think that this proceeding could bring out the air from the stomach and appendages, where it was impossible to prevent entirely its diffusion by the ancient method of shutting the gullet; and I could prove by experiment on the corpse, how easily the air may make its escape into the stomach, and how easily it remains there for a long time, for want of reaction, and by the resistance of the collapsing of the sides of the long gullet.

Permit me to say a word, before closing the letter, about the *projected* leathern tubes for the stomach. The result has completely answered the purpose; they are flexible and elastic beyond the most sanguine expectations; they

admit very easily of an external metallic spiral wire with light rings now and then for fixing it, and for facilitating the galvanic discharge in any way which should be thought most proper. The wire is connected with a light metallic cone, which forms the end of the tube in the stomach; this tube is closed at the apex, which is cut besides. Without this precaution, the fluids of the stomach would enter and fill it; but they cannot enter so easily through the many little holes all along its sides, and through them a free way is open to the ætherial vapour; which, by the by, not only is able to cross in every direction our tubes, but even longer ones, as demonstrated by experience. Very probably I may add a cover of lighter and varnished leather, to the tube, or varnish them with a solution of elastic gum. No impression of humidity then would be felt by the internal tube, from any long continuance in the gullet and stomach. But I shall only adopt these additions, in case they would not diminish so much the flexibility of the tube. Silver seems to me preferable to any other metal for the gullet and stomach, as well as for the larynx; and silver should even form the globe for the æther, for avoiding any danger in the evaporation of that liquid. I am very glad to say, that the globe has been so constructed, as to render it able to hang from the mouth without any support. A little spirit lamp chained to it will warm it at pleasure; and the funnel which serves when fixed to introduce the æther, will serve, reversed on the neck, to defend from the flame the leathern tube, and the face of the person operated upon.

I hope to publish soon the details of all these improvements in the instruments, as well as the account of the reanimation chair. The design will be taken by the artist from two sets already commanded.

Meanwhile, I deem it my duty to give public thanks to the zeal and intelligence of the distinguished artists, Messrs. Massi, Bouvier, Green, Weiss, and Emerill.—The first of them is now constructing a new larynx-tube of silver, more fit for the purpose than those before used, which were neither curved enough, nor gradually increasing in their volume from the top to the base. I would also express my gratitude to Mr. Herbert Mayo, of Berwick Street, in whose Anatomical Cabinet I was allowed to try experiments on many subjects, he being himself a co-labourer; but his kindness and attention are beyond expression.

I would indulge a hope, that the first trial of the new instruments in cases of suspended animation, may give an additional interest to the project; but let the event be as it will, it seems to me that it will be rendering some service to the science, to improve Coleman's Project of Reanimation; which, till now, was generally considered the most rational one. It will not, I hope, consist in improvement in principle merely, but will apply practically; and I hope any one will see at the first view of the new apparatus, from the very nature and disposition of them, how the operators will be made masters of space, of time, and degree of any employed force; and particularly, how they will be able to act on any day, damp or not, surely, simply, and quickly, at the recovering houses, as well as out at certain distances. A few practical lessons will enable any man of ordinary intelligence to carry into execution the given directions.

I have the honour to be,

SIR,

Your most obedient servant,

No. 2, Vittoria Place, Duke's Row,
Tavistock Square

B. DE SANCTIS, M. D.

A METEOROLOGICAL TABLE,

From 21st of APRIL to 20th of MAY, 1820,

KEPT AT RICHMOND, YORKSHIRE.

D.	Barometer.		Therm.		Rain Gauge	Winds.	Weather.
	Max.	Min.	Max	Min.			
21	29 97	29 94	65	41		W.SW	1 Sun...
22	30 16	30 12	65	39		W..N.E.	1 Sun...
23	30 37	30 37	62	40		N.E.NE.	1 Sun....
24	30 39	30 27	56	34		N..NE..	1 Sun....
25	29 94	29 64	61	45		NW.Vble.	1 Sun....
26	29 57	29 38	57	35	28	W...NW...	1 Sun.. & Show..
27	29 66	29 62	45	31		N..	1 Sh. of snow. 3 S.. 4 M...
28	29 62	29 60	52	37		SW..	1 Cloud.. 2 Sun..
29	29 77	29 69	58	34	01	WSW..	1 Cloud.. 2 S.. & Sh. 4 M...
30	29 95	29 88	56	32	01	NW..	1 Sun.... 2 Show. 4 Starl...
1	29 97	29 87	59	36		NW.E.NE.	1 Cloud.. 2 Sun..
2	29 84	29 82	62	34	20	NW.NE.	1 Cl.. 3 Rain.. 4 Snow.
3	29 79	29 70	55	28		EbN.	1 Cloud.. 2 Sun. 4 Starl...
4	29 64	29 59	54	31		NW..NE.	1 Cloud.. 2 Sun.. 4 Starl...
5	29 59	29 49	59	33		NW.NE.	1 Sun.. 3 Cloud..
6	29 28	29 22	54	40	34	SW..SE.	1 Sun.. 2 Rain....
7	29 38	29 36	53	42		NE.	1 Cloud...
8	29 31	29 21	53	46	27	E.S.E.	1 Rain...
9	29 30	29 29	67	44	16	SE.SW..	1 S.. 3 Th.. Light.. R.. 4 S..
10	29 38	29 38	66	44	16	SbE...SW..	13 Sun.. 24 Show..
11	29 55	29 44	63	45	15	SSW...SW..	1 Sun.. & Show..
12	29 68	29 65	65	44	02	SW..	1 Sun... 4 Starl... & Sb.
13	29 60	29 52	69	49	21	SW..NE..ESE..	1 Sun... 3 Cloud.. 4 rain...
14	29 47	29 40	65	47	21	SE.	1 R.. 2 S.. 3 Th.. Lt.. R..
15	29 44	29 38	62	39	16	SW..	1 Sun.. & Show..
16	29 34	29 34	64	39	03	W.SE.	1 Sun. & Show.
17	29 34	29 19	62	41	05	SW.	13 S... 2 Sh. Th. & S. 4 M...
18	29 06	28 89	52	41	92	N.NE..	1 Rain.... 3 Sun.. 4 Cloud...
19	29 53	29 38	62	45	03	SW...	1 Sun.. 4 Rain.
20	29 86	29 84	64	50		SW..	1 Sun...

The quantity of rain during the month of April was 1 inch 29-100ths.

Observations on Diseases at Richmond.

The disorders under treatment were, Anasarca, Cynanche parotidæ, Cynanche tonsillaris, Dyspepsia, Enteritis, Febris catarrhalis, Febris continua, Gastrodynia, Hæmatemesis, Hæmorrhoids, Hydrothorax Ischuria, Leucorrhœa, Menorrhagia, Obstipatio, Odontalgia, Ophthalmia purulenta, Pneumonia, Podagra, Rheumatismus acutus, Rubeola, Scabies, Tussis, Vaccinia, and Vertigo.

THE METEOROLOGICAL JOURNAL,

From the 20th of APRIL to the 19th of MAY, 1820,

By Messrs. HARRIS and Co.

Mathematical Instrument Makers, 50, High Holborn.

D.	Moon	Rain.	Therm.	Barom.	De Luc's Hygrom.		Winds.		Atmo. Variation.		
					Dry.	Damp.					
20	☾		58 62 48	30 15 30 22		10 10	NNW	NNE	Fine	—	—
21			53 62 44	30 27 30 30		9 11	NNE	ESE	Fine	—	—
22			50 58 45	30 34 30 35		8 10	ESE	ESE	Fine	—	—
23			54 62 44	30 45 30 49		9 8	ENE	ENE	Fine	—	—
24			53 62 43	30 49 30 45		8 7	NE	ENE	Fine	—	—
25			50 61 42	30 40 30 27		6 7	ENE	NE	Fine	—	—
26			47 56 42	30 00 29 72		7 8	WNW	NW	Fine	Fine	Clo.
27		100	44 45 39	29 72 29 92		10 8	NE	N	Rain	Clo.	—
28	☉		41 45 41	30 02 30 07		6 7	NNE	WSW	Clo.	Fine	Clo.
29			47 54 46	30 11 30 11		7 6	WNW	WSW	Clo.	Fine	Clo.
30		20	52 57 42	30 20 30 25		8 5	NW	NE	Rain	Fine	—
1			46 52 45	30 31 30 30		7 8	SSE	ENE	Fog	Fine	—
2			52 57 37	30 27 30 13		7 8	SW	ESE	Fine	Clo.	—
3			43 51 43	30 11 30 08		9 8	ESE	ESE	Clo.	—	—
4			50 54 38	29 98 29 87		7 8	ESE	SE	Fine	Clo.	—
5	☾		46 50 40	29 85 29 90		7 9	E	SE	Fine	Fine	Clo.
6			47 57 49	29 90 29 75		9 10	W	SSW	Fine	Clo.	Rain
7			54 59 53	29 61 29 73		9 8	NW	WSW	Clo.	Fine	Fine
8			57 62 53	29 73 29 66		9 10	WSW	S	Clo.	Fine	Rain
9			59 63 53	29 65 29 73		6 4	SW	SSW	Fine	Clo.	Fine
10			62 65 53	29 80 29 90		1 2	SW	SW	Fine	Clo.	—
11			62 63 52	29 95 30 00		2 6	SW	WSW	Fine	Clo.	Fine
12	☾		59 65 49	30 04 30 02		6 8	WSW	WSW	Clo.	Clo.	Fine
13			59 64 59	29 98 29 90		8 7	NE	SE	Clo.	Fine	Clo.
14			66 67 51	29 86 29 85		7 6	SSW	SSW	Clo.	Fine	Clo.
15			58 65 48	29 84 29 80		6 7	SW	SSW	Fine	Fine	Clo.
16			51 53 50	29 72 29 75		6 6	WNW	SW	Rain	Rain	Clo.
17			58 63 50	29 78 29 63		8 10	WSW	SE	Clo.	Fine	Sho.
18			51 54 48	29 39 29 33		11 10	SW	SW	Rain	—	—
19			55 60 50	29 70 29 94		9 9	W	SW	Fine	Rain	Clo.

The quantity of rain fallen in April is 2 inches and 83-100ths.

A REGISTER OF DISEASES

Between APRIL 20th and MAY 19th, 1820.

DISEASES.	Total.	Fatal.	DISEASES.	Total.	Fatal.
Abortio	6		Febris <i>catarrhalis</i>	14	
Abscessio	6	1	— <i>Synocha</i>	3	
Acne	1		— <i>Typhus mitior</i>	8	
Amenorrhœa	10		— <i>Typhus grav.</i>	1	1
Anasarca	16	1	— <i>Synochus</i>	24	
Aneurisma	1		— <i>Puerpera</i>	2	
Angina Pectoris	2		— <i>Remit. Infant.</i> ..	16	1
Aphtha <i>lactentium</i>	7		Fistula	2	
Apoplexia	2	1	Gastrodynia	12	
Ascites	13	3	Gonorrhœa <i>pura</i>	11	
Asthenia	14		Hæmatemesis	3	
Asthma	34	5	Hæmoptœ	10	
Atrophia	1		Hæmorrhœis	13	
Bronchitis <i>acuta</i>	8		Hemiplegia	3	
— <i>chronica</i>	10		Hepatalgia	3	
Bronchocele	2		Hepatitis	15	1
Carbunculus	1		Hernia	1	
Cardialgia	8		Herpes <i>circinatus</i>	1	
Carditis	1		— <i>labialis</i>	1	
Catarrhus	63		— <i>præputialis</i>	3	
Cephalalgia	20		Hydrocephalus	6	3
Cephalæa	2		Hydrothorax	4	2
Chlorosis	1		Hysteria	6	
Chorea	5		Hysteritis	2	
Cholera	2	1	Icterus	6	
Colica	3		Ischias	1	
— <i>Pictonum</i>	4		Ischuria	2	
Convulsio	4	1	Latis <i>dolor</i>	2	
Cynanche <i>Tonsillaris</i> ..	15		Leucorrhœa	9	
— <i>maligna</i>	1		Lichen <i>simplex</i>	3	
— <i>Trachealis</i> ..	1		Lumbago	4	
— <i>Parotidea</i>	1		Mania	9	
— <i>Latyngæa</i>	5		Melancholia	3	
Diabetes	2		Menorrhagia	16	
Diarrhœa	24	1	Miliaria	2	
Dolor	1		Morbi Infantiles*	37	1
Dysenteria	3		— <i>Biliosi</i> *	26	
Dyspepsia	25		Obstipatio	8	
Dyspnœa	5		Odontalgia	6	
Dysphagia	1		Ophthalmia	23	
Dysuria	1		Palpitatio	3	
Ecthyma	2		Paracusis	1	
Eczema	3		Paralysis	6	1
Enteritis	4		Pemphigus	3	
Entrodynia	3		Pectoris <i>dolor</i>	1	
Epilepsia	5		Peripneumonia	11	
Epistaxis	9		Peritonitis	15	1
Erysipelas	7		Pertussis	22	
Erythema <i>læve</i>	1		Phlegmasia <i>dolens</i>	2	
Febris <i>Intermittent</i>	14		Phlogosis	5	

DISEASES.	Total.	Fatal.	DISEASES.	Total.	Fatal.
Phrenitis	1		Scarlatina <i>maligna</i>	1	1
Phthisis Pulmonalis	24	9	Scrofula	7	
Plethora	1		Spasmi	4	
Pleuritis	9		Stricture	1	
Pleurodyne	5		Singultus	1	
Pneumonia	6	2	Syphilis	23	
Podagra	7		Tabes Mesenterica	4	
Porriago <i>larvalis</i>	4		Tussis	3	
— <i>favosa</i>	5		Vaccinia	20	
Prolapsus	3		Varicella	7	
Prurigo <i>mitis</i>	3		Variola	21	2
— <i>senilis</i>	4		Vermes	13	
Psoriasis <i>guttata</i>	5		Vertigo	26	
Purpura <i>simplex</i>	1		Vomitus	1	
Pyrosis	3		Urticaria <i>febrilis</i>	2	
Rheuma <i>acutus</i>	19		— <i>evanida</i>	2	
— <i>chronicus</i>	24		Total of Cases	1241	—
Rubeola	31	3	Total of Deaths	—	42
Scabies	57				
Scarlatina <i>simplex</i>	6				
— <i>anginosa</i>	6				

* *Morbi Infantiles* is meant to comprise those Disorders principally arising from dentition or indigestion, and which may be too trivial to enter under any distinct head; *Morbi Biliosi*, such Complaints as are popularly termed *bilious*, but cannot be accurately classed.

Observations on Prevailing Diseases.

A larger proportion than is ordinarily the case in the metropolis have recently occurred of intermittent and remittent fever. What is the cause of this?

Hydrocephalic, connected with catarrhal irritations, both apparently occasioned by dentition, have likewise proved one of the London epidemics of the preceding month. It is remarkable, that, without any obvious reason, the process of dentition should thus prove more severe and productive of disorder at one season than at another.

The Reporter has just been present at the examination of a child who died of hydrocephalus, which happened some months after an apparent cure of tabes mesenterica. The ventricles of the brain were, as was expected, surcharged with effusion; and in the mesentery was found a considerably sized tumour, which, when cut into, presented that curdly, cheesy kind of interior that is peculiar to scrofulous ulceration. Genuine hydrocephalus appears almost as decidedly a strumous affection as is tubercular phthisis; and it has much more connexion with this kind of morbid action, than with mere derangement in the first passages and their connecting viscera, or, as the phrase is, “the digestive organs.”

Quarterly Report of Prices of SUBSTANCES employed in PHARMACY.

Acaciæ Gummi elect.	lb.	5	0	Ferri subcarbonas	lb.	1	4
Acidum Citricum		28	0	— sulphas		1	6
— Benzolicum	unc.	5	0	Ferrum ammoniatum		5	0
— Sulphuricum	P. lb.	0	9	— tartarizatum		4	0
— Muriaticum		2	0	Galbani Gummi-resina		10	0
— Nitricum		4	0	Gentianæ Radix elect.		1	4
— Aceticum	cong.	4	6	Guaiaci resina		7	9
Alcohol	M. lb.	5	6	Hydrargyrum purificatum		5	4
Æther sulphuricus		12	0	— præcipitatum album		9	0
— rectificatus		14	0	— cum creta		5	0
Aloes spicata extractum	lb.	7	6	Hydrargyri Oxymurias	unc.	0	8
— vulgaris extractum		6	0	— Submurias		0	9
Althææ Radix exot.		1	8	— Nitrico-Oxydum		0	8
Alumen		0	6	— Oxydum Cinereum		1	4
Ammonizæ Murias		2	2	— Oxydum rubrum		6	0
— Subcarbonas		4	0	— Sulphuretum nigrum		0	4
Amygdalæ dulces		3	6	— rubrum		0	8
Ammoniacum (Gutt.)		9	0	Hellebori nigri Radix	lb.	3	0
— (Lump.)		5	6	Ipecacuanhæ Radix		18	0
Anthemidis Flores		1	10	— Pulvis		20	0
Antimonii oxydum		7	0	Jalapæ Radix		5	6
— sulphuretum		1	3	— Pulvis		6	6
Antimonium Tartarizatum		8	0	Kino		9	0
Arsenici Oxydum		2	6	Liquor Plumbi subacetatis	P. lb.	1	6
Asafoetidæ Gummi-resina	lb.	7	6	— Ammonizæ		3	8
Aurantii Cortex		4	0	— Potassæ		1	8
Argenti Nitras	unc.	6	6	Linimentum Camphoræ comp.		5	6
Balsamum Peruvianum	lb.	32	0	— saponis comp.		4	0
Balsamum Tolutanum		40	0	Lichen	lb.	1	6
Benzoinum elect.		10	0	Lytta		13	0
Calamina præparata		0	6	Magnesia		10	8
Calumbæ Radix elect.		4	0	Magnesia Carbonas		3	6
Cambozia		9	0	— Sulphas		0	6
Camphora		6	6	Manna		6	0
Canella Cortex elect.		4	0	— communis		4	0
Cardamomi Semina	lb.	9	0	Moschus pod. (36s.)	in gr. unc.	48	0
Cascarillæ Cortex elect.		3	0	Mastiche	lb.	6	0
Castoreum	unc.	3	6	Myristicæ Nuclei		12	0
Castor Russ.	oz.	20	0	— Myrrha		7	9
Catechu Extractum	lb.	4	0	Olibanum		3	0
Cetaceum		3	6	Opopanacis gummi resina		24	0
Cera alba		4	0	Opium (Turkey)		44	0
— flava		3	9	Oleum Æthereum	oz.	2	0
Cinchonæ cordifoliæ Cortex (yellow)		7	6	— Amygdalarum	lb.	3	9
— lancifoliæ Cortex (quilled)		11	0	— Anisi	unc.	2	0
— oblongifoliæ Cortex (red)		16	0	— Anthemidis		6	6
Cinnamomi Cortex		16	0	— Cassiæ		8	6
Coccus (Coccinella)	unc.	2	9	— Caryophilli		5	0
Colocynthis Pulpa	lb.	18	0	— Cajupati		5	6
Copaiba		6	0	— Carui		1	6
Colchici Radix		8	0	— Juniperi Ang.		4	0
Croci stigmata	unc.	5	6	— Lavandulæ		5	0
Cupri sulphas	lb.	1	4	— Lini	cong.	6	0
Cuprum ammoniatum		10	0	— Mentha piperitæ	unc.	4	6
Cuspariæ Cortex		3	6	— Mentha viridis Ang.		5	0
Confectio aromatica		9	0	— Pimentæ	unc.	6	0
— Aurantiorum		3	6	— Ricini optim.		6	9
— Opii		5	0	— Rosmarini	unc.	1	0
Confectio Rosæ caninæ		2	0	— Succini 2s. 6d. — rect.		5	0
— Rosæ gallicæ		2	3	— Sulphuratum	P. lb.	1	6
— Sennæ		2	0	— Terebinthine		1	0
Emplastrum Lyttæ		6	6	— rectificatum		2	0
— Hydrargyri		3	6	Olivæ Oleum	cong.	17	0
Extractum Belladonnæ	unc.	2	6	Olivæ Oleum secundum		14	0
— Cinchonæ		4	0	Papaveris Capsulæ (per 100)		3	6
— Cinchonæ resinoseum		6	6	Plumbi subcarbonas	lb.	0	8
Colocynthis		4	0	— Supracetas		2	6
Colocynthis comp.		1	6	— Oxydum semi-vitreum		0	9
Conii		0	6	Potassa Fusa	unc.	0	8
Elaterii		35	0	— cum Calce		0	6
Gentianæ		0	6	Potassa Nitras	lb.	1	2
Glycyrrhizæ	lb.	6	0	— Acetas		10	0
Hæmatoxyli	unc.	0	6	— Carbonas		4	0
Humuli		0	8	— Subcarbonas		1	2
Hyoscyami	unc.	1	6	— Sulphas		1	3
Jalapæ 1s. 6d. Res.		3	0	— Sulphuretum		4	8
— Opii		4	6	— Supersulphas		0	9
Papaveris		12	0	— Tartaras		3	9
Rhei		2	0	— Supertartaras		1	6
Sarsaparillæ		2	0	Pilulæ Hydrargyri	unc.	0	6
Taraxaci		0	9				

	s.	d.		s.	d.
Pulvis Antimonialis	0	9	Spiritus Myristicæ	3	6
— Contrayervæ comp.	0	4	— Pimentæ	3	6
— Tragacanthæ comp.	0	4	— Rosmarini	4	0
Resina Flava	lb.	0 4	— Ætheris Aromaticus	7	6
Rhæi Radix (Russia)	40	0	— Nitrici	5	6
Rhæi Radix (East India) opt.	12	0	— Sulphurici	6	0
Rose p-tala	14	0	— Compositus	7	6
Sapo (Spanish)	2	8	— Vini rectificatus	cong.	32 0
Sarsaparillæ Radix (Lisbon)	5	4	Syrupus Papaveris	lb.	2 0
Scammonie Gummi-Resina	unc.	3 0	Sulphur Sublimatum	1	0
Scille Radix siccata. opt.	Ang. lb.	5 0	— Lotum	1	2
Senegæ Radix	4	0	— Precipitatum	2	6
Sennæ Folia	6	6	Tamarindi Pulpa opt.	5	6
Serpentariæ Radix	7	6	Terebinthina Vulgaris	0	10
Simaroube Cortex	3	6	— Canadensis	6	0
Soda subboras	4	6	— Chia	12	0
— Sulphas	0	6	Tinct. Ferri muriatis	5	6
— Carbonas	6	0	Tragacantha Gummi	6	8
— Subcarbonas	1	6	Valeriane Radix	2	0
— exsiccata	5	4	Veratri Radix	2	8
Soda tartarisata	2	0	Unguentum Hydragryi fortius	5	0
Spongia usta	unc.	24 0	— Nitratæ	4	0
Spiritus Ammoniac	M. lb.	4 6	— Nitrico-oxydi	3	0
— aromaticus	5	0	Uvæ Ursi Folia	3	6
— foetidus	6	0	Zinci Oxydum	7	0
— succinatus	5	6	— Sulphas purif.	3	6
— Cinnamomi	3	6	Zingiberis Radix opt.	4	0
— Lavandulæ	5	0			

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NOTICES TO CORRESPONDENTS.

Communications have been received this month from Dr. Williams, Mr. Brayne, Mr. Hall, and Mr. Shoveller, the two last by the hands of Dr. Johnson.

Mr. Battley's and Dr. Williams' papers on Colchicum are both forthcoming. We are desirous to state, that persons who feel disposed to make trial of the colchicum seeds, will find them ripe and fit for gathering the latter end of June or the beginning of July, according to the state of the weather.

The following Books have been sent to us for review, all of which will be noticed in our next Retrospect, and some of them afterwards more minutely reviewed:—Howship on Diseases of the Bowels and Anus; Prichard on Epidemic Fever; Maclean's Specimens of Systematic Misrule; Harrington's Elucidation of his System of Chemistry; Burrows' Inquiry into certain Errors relative to Insanity; Hall's Cases of Puerperal Diseases, &c.; Macartney on Curvature of the Spine; Hunter on Harrowgate Waters; Grattan on the Present State of Medical Practice; Review of Grattan's Pamphlet; Letters on the Claims of the General Practitioner, &c.; Malden's Remarks on the Cow-pox; Hutchinson's Cases of T^{he} Doloureux; Weatherhead on Rickets; and the Annual Report of the Society for restoring Suspended Animation.

ERRATA.—The press, from uncontrollable circumstances, was so hurried in the last month, that a serious error has been permitted to pass in our review of Adams and Guthrie. The paragraph in page 413, commencing in the fifteenth line from the bottom, ought to read as follows:—

“The first is a compound mode—the treatment of the lens forming one operation, the formation of the pupil another, at a subsequent period, when the anterior chamber has resumed its original dimensions. Or, 3rd, The sclerotikectomy,” &c. &c.

In page 411, line 11, “coretomy” is printed for “corectomy;” and 416, Sir James M^cGrigor's name is spelt “M^cGregor.”

. *Communications are requested to be addressed (post paid) to*
Messrs. T. and G. UNDERWOOD, 52, Fleet Street.

END OF THE THIRTEENTH VOLUME.

J. NOYES, GREVILLE STREET, LONDON.

Edinburgh, April, 1820,

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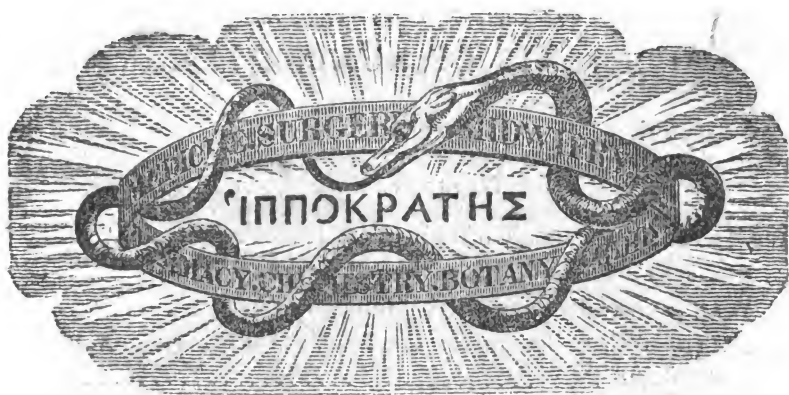
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